

**HEARING ON CAREERS FOR THE 21st CENTURY:  
THE IMPORTANCE OF EDUCATION AND WORK-  
ER TRAINING FOR SMALL BUSINESS**

---

**HEARING**

BEFORE THE

**COMMITTEE ON SMALL BUSINESS  
HOUSE OF REPRESENTATIVES**

ONE HUNDRED EIGHTH CONGRESS

SECOND SESSION

WASHINGTON, DC, JUNE 2, 2004

**Serial No. 108-68**

Printed for the use of the Committee on Small Business



Available via the World Wide Web: <http://www.access.gpo.gov/congress/house>

U.S. GOVERNMENT PRINTING OFFICE

94-136 PDF

WASHINGTON : 2004

---

For sale by the Superintendent of Documents, U.S. Government Printing Office  
Internet: [bookstore.gpo.gov](http://bookstore.gpo.gov) Phone: toll free (866) 512-1800; DC area (202) 512-1800  
Fax: (202) 512-2250 Mail: Stop SSOP, Washington, DC 20402-0001

## COMMITTEE ON SMALL BUSINESS

DONALD A. MANZULLO, Illinois, *Chairman*

ROSCOE BARTLETT, Maryland, *Vice  
Chairman*

SUE KELLY, New York

STEVE CHABOT, Ohio

PATRICK J. TOOMEY, Pennsylvania

JIM DEMINT, South Carolina

SAM GRAVES, Missouri

EDWARD SCHROCK, Virginia

TODD AKIN, Missouri

SHELLEY MOORE CAPITO, West Virginia

BILL SHUSTER, Pennsylvania

MARILYN MUSGRAVE, Colorado

TRENT FRANKS, Arizona

JIM GERLACH, Pennsylvania

JEB BRADLEY, New Hampshire

BOB BEAUPREZ, Colorado

CHRIS CHOCOLA, Indiana

STEVE KING, Iowa

THADDEUS McCOTTER, Michigan

NYDIA VELÁZQUEZ, New York

JUANITA MILLENDER-McDONALD,  
California

TOM UDALL, New Mexico

FRANK BALLANCE, North Carolina

ENI FALEOMAVEAGA, American Samoa

DONNA CHRISTENSEN, Virgin Islands

DANNY DAVIS, Illinois

GRACE NAPOLITANO, California

ANÍBAL ACEVEDO-VILA, Puerto Rico

ED CASE, Hawaii

MADELEINE BORDALLO, Guam

DENISE MAJETTE, Georgia

JIM MARSHALL, Georgia

MICHAEL MICHAUD, Maine

LINDA SANCHEZ, California

BRAD MILLER, North Carolina

[VACANCY]

J. MATTHEW SZYMANSKI, *Chief of Staff*

PHIL ESKELAND, *Policy Director*

MICHAEL DAY, *Minority Staff Director*

# CONTENTS

## WITNESSES

	Page
DeRocco, Hon. Emily Stover, Assistant Secretary of Labor, Employment and Training Administration .....	4
Lewis, Hon. Edward G., Chairman, Board of Directors, National Veterans Business Development Corporation .....	6
Buehlmann, Dr. Beth B., Ph.D., V.P. and Executive Director, U.S. Chamber of Commerce .....	21
McCarthy, Mr. Brian, Chief Operating Officer, Computer Technology Industry Association .....	23
Joyce, Mr. Roger, V.P. of Engineering, National Association of Manufacturing .....	25
Volgenau, Dr. Ernst, Chairman and CEO, SRA International .....	28
Coffey, Mr. Matthew B., President and Chief Operating Officer, National Tooling and Machining Association .....	30
Peers, Mr. Randolph, V.P. for Economic Development, Brooklyn Chamber of Commerce .....	31
Caslin, Mr. Michael, Executive Director and CEO, National Foundation for Teaching Entrepreneurship .....	34

## APPENDIX

Opening statements:	
Manzullo, Hon. Donald A. ....	52
Velazquez, Hon. Nydia .....	54
Prepared statements:	
DeRocco, Hon. Emily Stover, Assistant Secretary of Labor, Employment and Training Administration .....	56
Lewis, Hon. Edward G., Chairman, Board of Directors, National Veterans Business Development Corporation .....	67
Buehlmann, Dr. Beth B., Ph.D., V.P. and Executive Director, U.S. Chamber of Commerce .....	84
McCarthy, Mr. Brian, Chief Operating Officer, Computer Technology Industry Association .....	95
Joyce, Mr. Roger, V.P. of Engineering, National Association of Manufacturing .....	107
Volgenau, Dr. Ernst, Chairman and CEO, SRA International .....	113
Coffey, Mr. Matthew B., President and Chief Operating Officer, National Tooling and Machining Association .....	131
Peers, Mr. Randolph, V.P. for Economic Development, Brooklyn Chamber of Commerce .....	146
Caslin, Mr. Michael, Executive Director and CEO, National Foundation for Teaching Entrepreneurship .....	153



## **HEARING ON CAREERS FOR THE 21st CENTURY: THE IMPORTANCE OF EDUCATION AND WORKER TRAINING FOR SMALL BUSINESS**

---

**WEDNESDAY, JUNE 2, 2004**

HOUSE OF REPRESENTATIVES,  
COMMITTEE ON SMALL BUSINESS  
*Washington, D.C.*

The Committee met, pursuant to call, at 2:08 p.m. in Room 2172, Rayburn House Office Building, Hon. Donald A. Manzullo presiding.

Present: Representatives Manzullo, Velazquez, Bartlett, Franks, Beauprez, King, Udall, Sanchez

Chairman MANZULLO. Good afternoon and welcome to this hearing of the Committee on Small Business. A special welcome to those who have come some distance to participate and to attend the hearing.

Our nation is now in a global economy, and businesses both big and small must compete in regional markets within the U.S. as well as those in distant corners of the globe. The competition for ideas and innovation is as expansive as the markets themselves.

The U.S. economy is still the strongest in the world. Jobs and manufacturing are recovering slowly, but the recovery is broad based, just what we want.

Those who come to Washington for assistance in providing training, however, must be committed to providing jobs to those trained and to providing and retaining jobs in the United States.

However, to maintain this country's competitiveness, we as a nation cannot dwell on past successes. Instead, we must accept the challenge of the future and build and preserve a foundation for continued success.

To continue this country's competitiveness in world markets requires a workforce constantly trained and available in those skills needed in an increasingly technology-centered and computer-based environment. Equally important to playing a leadership role in the world economy is the education and foresight of those who manage and direct U.S. businesses. In order to foster and sustain both this nation's worldwide competitiveness and domestic job growth, requires making life-long career training and education a national priority.

My friend and colleague, Congressman Jerry Weller of Illinois, has introduced legislation, H.R. 4392, that will assist employers

and employees to get those technical skills necessary to keep this nation's workforce and industries on the cutting edge of science and technology. H.R. 4392, the "Technology Retraining and Investment Now Act of 2004," addresses the critical problem of providing a high-tech workforce capable of mastering the ever-changing advances in the design and manufacture of increasingly sophisticated products, especially those connected with computers and information technology.

I strongly support job training and retraining. It is a key element in this country's maintaining its competitiveness in world markets. Again, we thank you for coming to this hearing.

I now yield for an opening statement by my good friend and colleague, the Ranking Member, Ms. Velazquez of New York.

[Chairman Manzullo's statement may be found in the appendix.]

Ms. VELAZQUEZ. Thank you, Mr. Chairman.

As our nation experiences a rising tech industry and a recovering manufacturing sector, we also see the increased need for skilled workers. This growing demand for skilled labor is an increasing trend in this country. As our nation struggles to sustain an economic recovery, we cannot afford to have a shortage of qualified trained workers within some of our most prominent industries. Sixty percent of all jobs are classified as skilled while only 20 percent are classified as nonskilled.

Our country's failure to meet the demand for these trained workers poses a serious threat to our competitiveness in the global market and to our ability to sustain an economic recovery. Much of this has to do with the fact that the manufacturing sector has been hit hardest by the shortage. A recent report stated that more than 80 percent of manufacturers claim to have difficulty finding qualified employees and that 60 percent of manufacturers typically reject 50 percent of all applicants because of a lack of skills.

At a time when technology is causing manufacturing jobs to become increasingly skilled, a high premium has been put on employee skills. Jobs continue to move overseas, and the Bush administration's policies are doing little, if anything, to help this nation's manufacturing sector.

Sadly, the pool of skilled labor is not ready to meet our nation's demand, especially within the manufacturing sector. Foreign countries are providing the training that unskilled employees need, shifting even more American jobs overseas. Our nation's small businesses and manufacturers do not have the funding to offer these vital training programs.

In today's hearing, we will examine the eight-week-long Republican agenda, Hire Workers Initiative. This week's focus is on lifetime learning, and once again, there are no new solutions being offered by the Republican leadership aside from the personal reemployment accounts, which are nothing more than risky schemes. Instead, the Republicans choose to go back to legislation that has already passed and already failed, and I think that it is too soon for summer reruns.

The Bush administration's new job training dynamics are not conducive to meeting the needs of our nation's industries. President Bush proposed commitment to hiring workers does not match up with his actions. Despite the fact that our nation has lost over 2.8

million jobs in the manufacturing sector since the start of 2001, the Bush administration makes cuts to vital employment and training programs that benefit this industry.

President Bush's request for funding for the Manufacturing Extension program is more than \$66 million less than the program's funding level in 2003. The Manufacturing Extension program aids small- and medium-sized manufacturers with technical and business solutions and has made it possible for over 150,000 of our country's small businesses to tap into the expertise of knowledgeable manufacturing and business specialists all over the United States.

Another vital program that has been underfunded by the Bush administration is the Trade Adjustment Assistance program. This program offers retraining to displaced workers. But most of these dislocated manufacturing employees receive no help from TAA.

At a time when training programs are crucial for displaced employees, President Bush cut funding for the program. These come at a time when the number of people benefitting from TAA is on the rise, and this funding will not meet the increasing demand for the program. Cutting funding for employment and training initiatives such as these is not the way to help the manufacturing sector sustain an economic recovery while they are already experiencing a shortage of skilled workers. These cuts also hurt our small businesses which create 75 percent of all new jobs and face greater workforce-development barriers than their corporate counterparts.

If President Bush truly cared about nation's workforce, then he would start adequately funding employment and training programs that promote skilled employees. The livelihood of our nation's small manufacturers and small businesses depends on it. Thank you, Mr. Chairman.

Chairman MANZULLO. Thank you.

[Ranking Member Velazquez's statement may be found in the appendix.]

Our first witness is Emily Stover DeRocco, assistant secretary of labor for employment and training. We are going to set the clock for about five minutes, but before we do that, if you could just take a minute, Secretary DeRocco, to give us an idea what your background is.

Ms. DEROCCO. Certainly.

Chairman MANZULLO. And then if you could pull that mike closer to you. There you are. A little bit closer. Then as soon as you tell us what your background is, after a minute or so, then we will start the clock. Is that fair enough?

Ms. DEROCCO. Absolutely.

Chairman MANZULLO. It will be the same for you, Secretary Lewis. Please.

Ms. DEROCCO. I was appointed to this position by President Bush in June of 2001 and confirmed in August of that year. Prior to that, I served for about 10 years as executive director of the national organization that represented the gubernatorial appointees across the country responsible for the full array of employment and training workforce-development programs within their states. I had previous appointments in both the administrations of Presidents Reagan and Bush I.

Chairman MANZULLO. Okay. Now we will start the clock. Thank you.

**STATEMENT OF EMILY STOVER DeROCCO, EMPLOYMENT AND TRAINING ADMINISTRATION, DEPARTMENT OF LABOR**

Ms. DEROCCO. Thank you so much, Mr. Chairman and Congresswoman and members of the Committee. I am very pleased to have the opportunity to testify today to discuss workforce issues to maintain the nation's leadership in world markets, with a particular emphasis on our manufacturing sector, including how we train and retrain our workers so that they are competitive in the world economy. I will summarize my written testimony quickly.

In my capacity as assistant secretary of labor for employment and training, I am responsible for overseeing the nation's public workforce investment system, which provides a vast array of employment and training services to prepare youth, adults, and workers transitioning between jobs for employment in the 21st century. Most of these services are available through a network of almost 2,000 comprehensive, one-stop career centers and another 1,600 affiliate one-stop centers network. Through this network system, workers have the advantage of access to a broad range of employment and training services, including those available through the one stop that are provided by our partner programs, some 17 additional federal programs.

Through our programs and some initiatives that I will describe in a moment, the Department is building a demand-driven system to provide America's economic engine, businesses, with the highest-quality workers possible and to link the two together for their mutual benefit. This relationship allows businesses to be more competitive in the global economy and allows workers to live more productive and prosperous lives.

Earlier this year, the administration submitted to the Congress a report on manufacturing in America that outlined a comprehensive strategy to address the challenges facing our manufacturers. Soon, the Department of Labor will be submitting its own report highlighting trends in manufacturing employment.

Several themes emerge from these reports. The first concerns the importance of the manufacturing sector, on which we can all agree. The United States is the world's leading producer of manufactured goods and, standing alone, the U.S. manufacturing sector would represent the world's fifth-largest economy. Manufacturing remains a powerful engine of economic growth in this country and is vital to the technology boom, and our manufacturing base generates enormous economic activity in other industry sectors.

A second theme concerns the transformation of the manufacturing sector caused by long-term structural forces, such as the shift from low-tech manufacturing to advanced manufacturing, the greater integration of technology and production, and the globalization of production. To help ensure solid and sustainable expansion in coming years, we must recognize that some current and prospective workers have insufficient skills for the higher skilled job openings that do exist and will become more numerous in the future.



When I co-chaired the Department of Commerce Manufacturing Roundtable of workforce issues, I heard directly from industry executives about skill shortages. One of the most protracted problems that employers face is the lack of skilled workers to operate their high-tech manufacturing plants. Even during the recession, as the Congresswoman cited, 80 percent of manufacturers said they had a moderate-to-serious shortage of high-quality production applicants, not just of engineers.

The more pervasive problem is now the need for production workers, machinists, and craft workers skilled enough to work in the manufacturing jobs of the 21st century, and the demographics of the workforce are likely to exacerbate the shortage of skilled workers in the coming years. American manufacturers could have a difficult time finding workers to run tomorrow's factories and offices.

We recognize that skills and education are now a dominant, if not decisive, factor in our ability to compete in the global economy. We must have the best-skilled workforce possible to maintain America's competitive advantage and for our continued economic growth. That is where the Department of Labor has an important role to play. Our task is not to cultivate a workforce trained for jobs listed in last week's want ads but rather to ensure that people are moving through an education and training pipeline to be prepared for the new jobs that are being created, in many cases by brand-new companies in brand-new industry sectors.

We must cultivate skill sets that connect to real-world needs and real-world opportunities, and as we strive to be competitive in the global economy, we also recognize that some industries and workers will be impacted by business decisions and competitive pressures, and inevitably some workers will need to retool and retrain from the skills no longer required by declining industries to skills demanded in emerging sectors of the economy. The Department provides a vast array of services to assist workers who are transitioning between jobs, and these are outlined in detail in my prepared statement.

The president has asked the Department of Labor to target those industries generating the most new jobs where the greatest skill shortages exist and focus on the talent base to fill those jobs. American manufacturing is among those sectors.

As we increase our understanding of these workforce challenges, we also must improve the responsiveness of the publicly funded workforce investment system, and we are committed to doing that. First, through the reauthorization of the Workforce Investment Act, we have proposed increased flexibility and effectiveness of our training programs.

Second, in his 2005 budget, the president has requested an additional \$250 million to strengthen the role of community and technical colleges in training workers for these jobs.

Third, personal reemployment accounts would offer additional funds for a different type of service delivery geared to an individual's needs to reattach to the employment market.

And, finally, in April, President Bush announced his proposal to further reform job-training programs to provide more dollars for

America's workers so they could access better training for better jobs.

Taken together, our current programs and proposed initiatives will provide important tools to help address the structural changes in the manufacturing industry and will also help provide the skilled workforce needed in the manufacturing industry of the 21st century. I would be pleased to answer any questions you or other Committee members may have after the conclusion of my——.

[Hon. DeRocco's statement may be found in the appendix.]

Chairman MANZULLO. Thank you very much.

Our next witness is Honorable Edward G. Lewis, chairman of the board, National Veterans Business Development Corporation, also known as "The Veterans Corporation." Mr. Lewis, we look forward to your testimony, but before we start the clock, just give us a minute, take a minute, and tell us about your background.

Mr. LEWIS. Thank you, Mr. Chairman. I have been on the board of directors of the Veterans Corporation since October 2001, having been appointed by President Bush, and was elected as chairman in December. Currently, I founded and run an international management and technology consulting company from the great State of Colorado. I am also heavily involved in teaching graduate and undergraduate courses at the University of Denver and the University of Colorado and have been doing both of these activities over the past 12 years.

Prior to that, I was assistant secretary for information resources management and the first chief information officer in the new Department of Veterans Affairs between 1989 and 1991. Prior to that, I served in the United States Marine Corps for just under 21 years.

Chairman MANZULLO. Okay. We look forward to your testimony.

Mr. LEWIS. Thank you very much.

Chairman MANZULLO. Do you see how that brings things into perspective, knowing that you are a Marine for 21 years and on the veterans board, you know. Very significant.

Mr. LEWIS. Thank you, sir.

Chairman MANZULLO. Now we will start the clock. Thank you.

#### **STATEMENT OF EDWARD G. LEWIS, NATIONAL VETERANS BUSINESS DEVELOPMENT CORPORATION**

Mr. LEWIS. Good afternoon, Mr. Chairman and distinguished members of the Committee. Thank you very much for your invitation to testify today. This is my first appearance before your Committee, and I am deeply honored to have this opportunity, particularly since your Committee is one of the congressional authorization committees for the National Veterans Business Development Corporation.

As chairman of the board, as a private citizen, and as an entrepreneur, and as a longtime educator, I commend the leadership role that this Committee is providing and strongly support your efforts to bring focus on these critical education and training issues. Today, my comments on education and training are primarily focused on one group of individuals in this country, our veterans, including service-disabled veterans, but more specifically, on those veterans who are involved in entrepreneurial endeavors and small business enterprises.

Let me focus on five issues from my written testimony. First, in my view, entrepreneurship is alive and well in this country. The self-employed, home-based businesses and small business enterprises are, in fact, the backbone of this nation's economic infrastructure, vitality, and strength. Many people in this country, including veterans, own small businesses and contribute significantly to domestic job growth, the overall productivity of this nation, and its competitive posture in the global marketplace. To be successful entrepreneurs, veterans must gain in-depth knowledge needed to succeed in both the start-up and growth phases of small business entrepreneurial activities. This knowledge can be gained through effective entrepreneurial education, mentoring, and counseling, not on a one-time basis but on a learning continuum throughout the life of the entrepreneurial activity.

Second, there is no question that future technology innovation and information technologies are extremely important for organizations to remain competitive in the world's markets to help support job creation and growth and to meet our future challenges. To leverage the strategic value of information technologies within our organizations, we need to "informatize" our organizations, not automate them.

To evolve an Information Age society requires more effective education and training, including entrepreneurial education throughout our society. This education and training must begin at an early age and become a significant part of lifelong learning for all individuals as well as for and within organizations. It must become all encompassing to be effective.

Third, congressional intent was and is clear within Public Law 106-50, passed in August 1999. Entrepreneurial, veteran-owned, small business enterprises are critical to this nation and to our national economic viability. We must and should, as a nation, support veterans in their entrepreneurial endeavors to provide them the necessary resources and capabilities to help them grow and build their small business enterprises. To be successful in supporting veteran entrepreneurship, the Veterans Corporation, established under Public Law 106-50, must facilitate and coordinate public and private resources in a dynamic collaborative effort across this country in order to provide veterans with the necessary resources and capabilities to build and grow their small business enterprises, including entrepreneurial education, mentoring, and counseling.

Fourth, we are currently working with the Association of Small Business Development Centers and the VA Center for Veteran Entrepreneurship to help facilitate implementation of the provisions of the recently passed Public Law 108-183 that can provide service members and veterans who have Montgomery GI Bill benefits with funding to pay for entrepreneurial education courses. I also want to recognize and fully support the recent Veterans Earn and Learn Act to help modernize on-the-job training and apprenticeship programs reflecting today's marketplace.

Fifth, and finally, the Veterans Corporation is currently in the initial stage of developing and evaluating a concept referred to as the National Veterans Entrepreneurial Education Initiative. The overall goal is to provide high-quality entrepreneurial education in the most cost-efficient and effective manner possible to as many

veterans as possible, including Reserve and Guard personnel. The intent of this national initiative is to develop and provide a strategic vision and strategic leadership at the national level, building a coalition of private and public organizations for effective implementation of this initiative at the local level. The strategic initiative would include an all-encompassing, comprehensive, lifelong entrepreneurial learning continuum to include a wide range of formal and informal entrepreneurial education, training, mentoring, and counseling, and assistance for veterans in full support of their entrepreneurial endeavors and small business activities.

In summary, we in the Veterans Corporation are proud of our efforts over the past 20 months in providing effective entrepreneurial education to veterans, including service-disabled veterans. Many of us also realize that for the Veterans Corporation to be truly successful in helping entrepreneurial veterans over the long term, we must be able to develop and deliver effective programs and services, including collaborative, cooperative partnerships that are unique and that directly support veteran entrepreneurship, including a dynamic, all-encompassing, lifelong-learning approach to entrepreneurial education, mentoring, and counseling. In this way, the Veterans Corporation can effectively support the goals of this Committee.

Again, thank you very much, Mr. Chairman and distinguished members of the Committee, for this opportunity to express my views. I now would be pleased to answer any of your questions.

[Hon. Lewis' statement may be found in the appendix.]

Chairman MANZULLO. Thank you. I appreciate the testimony.

We have a unique situation in Rockford, Illinois. Our unemployment just fell below 10 percent for the first time in probably two years, and we are excited about that. No new manufacturing jobs have been added, but we continue to lose them. Illinois is one of four states that continues to lose manufacturing jobs at a lower pace than before. At the same time, we have a unique situation where people involved in manufacturing have placed ads in the newspaper advertising for machinists.

Secretary DeRocco, you have a smile on your face that you have heard that situation before. Tell us what is going on. Can you take a guess at it? I have got an idea, but I would like to hear your ideas.

Ms. DEROCOCO. The dynamics of each local labor market are so different, but there is a certain skill requirement in the machinist's trade that is not necessarily available in the manufacturing workforce as we have known it in the past. That is why it is so critical for this public workforce system to get smart by talking first with businesses and those who are creating jobs and have jobs available to understand what skills workers need so that we are investing this vast amount of public resources in training to those skills so that the workers can make transitions to jobs that are available as quickly and effectively as possible.

We also, through reauthorization of the Workforce Investment Act, have encouraged Congress to make available more of the resources for incumbent worker training so that if there is a shift in a production process or in skill sets needed by a workforce before they are laid off, these resources can be brought to bear on behalf

of those workers while they are still employed, and we do not experience more periods of unemployment.

It is a skills mismatch and job availability that this system, acting as a smart intermediary that brings business and workers together effectively with the educational institutions, that can provide the training most effectively, and would make this a wise investment of public resources and a much more important system to local economies.

Chairman MANZULLO. That is good analysis. Just a couple of things I want to throw out, and either you want to comment on them or not touch them; that will be up to you.

Maybe 50 years ago, 40 or 50 years ago, a bunch of people involved in education in this country sat down decided that there was something intrinsically wrong with people who work in shops and that machine oil was not good, that to be a successful person, you had to go to a four-year college and get a degree, and that has resulted in what I consider in this country to be an anti-manufacturing culture, that people like my father, who was a skilled machinist before he became a skilled butcher, skilled carpenter, and a skilled restaurateur, back in those days, they all worked with their hands. I looked upon the fruit of his hands with great pride.

And then the technical schools and the high schools decided to scale back the classes—we called them machine shops and wood-working and automotive repairs—because the demand went down. Kids got it in their head that perhaps there was something more to life than working with your hands. And then the technical schools became centralized so the people that were going to go to college stayed at their high school, and those that were going to go into manufacturing or the “industrial arts,” as it was called, were bussed to a central location. Thus, you had a segregation and a division in this country. Would either of you like to comment on that?

Ms. DEROCO. I would love to.

Chairman MANZULLO. I think that Mr. Lewis has a thought on that, too. I saw him nodding his head. Go ahead.

Ms. DEROCO. Okay. We will both comment. It is true that we have experienced something of a college culture in the United States, and both the Department of Education and the Department of Labor recognize that as we look at the jobs that are being created and available. Believing that all young people and transitioning workers need a strong academic foundation to succeed in almost any field of endeavor and supporting education fully for that reason, we also have launched an initiative we call “Skills To Build America’s Future” that we hope will re-lift the attention to and the respect for the skilled crafts and trades that are prominent in so many of our growth sectors, starting with construction and moving into manufacturing.

Many of the skills that are being developed or that need to be developed to support occupations and careers in these fields have long career pathways and lifelong education and training opportunities, and certainly we in the public workforce system need to support those better. We think we need to do it in partnership with the educational system with a new vision of what vocational education in this country and career opportunities are all about. We

have begun that effort, and I would be eager to share more information about that with you.

Chairman MANZULLO. Mr. Lewis?

Mr. LEWIS. I have several points that I would like to make. One, with reference to whether or not it takes a college education to succeed out there, I think Bill Gates, Michael Dell, and Tiger Woods are examples where it does not, not to demean the college education. It has its proper place as does all sorts of different training opportunities, and we should not dismiss any of these.

Second, with regard to the classroom environment, two things I would like to point out, at least in my experience, and I think I have a fair amount in terms of teaching, in business schools, across the board in this country, there is not an emphasis on manufacturing in the business schools. There is maybe a course here and there but certainly not a dedicated emphasis which we have general courses, and I think that certainly is something that should be considered. How can we evolve that type of environment in order to effectively support people moving into the manufacturing environment?

Third, I also want to emphasize that one of the keys to success in our organizations, including manufacturing, is clearly the role of information technologies. However, in terms of the educational process, I think in many cases we sometimes do a disservice in terms of educating people in information technologies by focusing just on the technologies themselves and not in terms of the strategic value they provide to organizations.

This is an issue that needs to be emphasized within all aspects of education and particularly in the university environment. Regardless of course, whether it is accounting, whether it is operations management, whether it is finance, the role of information technology is extremely important as students then take that knowledge to the private sector in terms of their jobs, whether it is in service or manufacturing. In order to be effective, though, in those jobs, they need to better understand the role of information technology.

Chairman MANZULLO. Thank you. Congresswoman Velazquez?

Ms. VELAZQUEZ. Thank you, Mr. Chairman.

Ms. DeRocco, you mentioned that the president increased funding for the workforce development programs, but, in fact, the administration Fiscal Year 2005 budget reduces funding for such programs as Perkins, Manufacturing Enterprise program, ATP, to name a few. I have here a chart prepared by CRS with all of the programs, and when you add them up, the total cut is \$125 million. So how are we going to close the skill gap to address the training needs of our workforce when you are not supplying the resources that we need?

Ms. DEROCCO. I am not familiar with the chart you have in front of you. Our budget reflects that our 2005 request for training and employment services under the Workforce Investment Act is, in fact, an increase from the 2004 level of appropriations, so I would be interested in comparing those numbers with you.

Ms. VELAZQUEZ. I guess that the administration has a conflict between your numbers and the ones that are supplied by CRS. That is the congressional research office.

Ms. DEROCCO. Our training and employment services budget for the Employment and Training Administration, which leads the workforce investment system, is \$3.279 billion for adults in 2005, compared to a \$3.129 billion appropriation in 2004.

I would also mention that, in terms of funding for the Trade Adjustment Assistance program, which you mentioned, we are providing \$220 million, which is the statutory cap for training, in that program. As you know, it is a capped entitlement, so the amount available is what Congress makes available, which is \$220 million——.

Ms. VELAZQUEZ. You are not adding in your numbers those cut by the Department of Education within the Department of Education. That is why you get those numbers.

Ms. DEROCCO. In terms of the first question, you mentioned Perkins, which is at the Department of Education, and the Manufacturing Extension Partnerships, which are at the Department of Commerce, I did want to mention to you, as it relates to the Manufacturing Extension Partnerships, that we are working very closely with the MEPs in the president's high-growth, job-training initiative in advance manufacturing because in many communities they are a partner in new projects that bring together business, education, and the public workforce system and are receiving funding through the Department of Labor in addition to their appropriated level. So I just wanted you to be aware of those projects that we are working on because MEPs can be very important components of a community's economic-development plan when there continues to be a strong manufacturing presence.

Ms. VELAZQUEZ. May I?

Ms. DEROCCO. Absolutely.

Ms. VELAZQUEZ. Yes. Here you are telling me that you are working with all of the MEPs, but when we look at the budget, the president zeroed out the budget for that.

Ms. DEROCCO. Again, I am not familiar with the Department of Commerce budget specifically. I did not believe that they were zeroed out. I just wanted you to know that there are additional cross-agency partnerships and funding opportunities that the MEPs——.

Ms. VELAZQUEZ. Can we talk for a second about the Jobs for the 21st Century Initiative——

Ms. DEROCCO. Certainly.

Ms. VELAZQUEZ [CONTINUING] That represents the hallmark of the administration in terms of job training? An editorial in the Minneapolis Star Tribune found that funding for the Labor Department's key worker training programs have fallen by 10 percent since the president took office. Could you please explain how the president's plan will compensate for these cuts?

Ms. DEROCCO. Well, again, I cannot hold the Minneapolis Tribune up as an expert on the federal budget. According to our budgets, there has not been a 10 percent cut in terms of any of the funding for the workforce investment programs at the Department of Labor. I will say the president has added \$250 million for a community college initiative that will add training opportunities for workers. He has also requested authorization for a \$50 million additional investment in personnel reemployment accounts, which is

not a cut in any other program but is, instead, an opportunity to add a new service-delivery option in the one-stop career center system.

Ms. VELAZQUEZ. When it comes to numbers, coming from the administration—I do not know if you recall the debate on Medicare prescription drugs, numbers that were sent to us, and then after we passed the legislation and we voted on, we discovered that the White House was telling us that the numbers were not the numbers that they submitted to us. When it comes to the numbers, I really believe what CRS is sending us, and what it shows is that there is a cut in those workforce training programs within the federal government at a time when we need to provide resources because if we are saying that small businesses are the job creators, and I think that is what the president tell us when he goes around and visits small manufacturing business people, well, you know, we need to provide the resources to help them, and we are not. We are cutting them, according to the CRS.

Ms. DEROCO. Again, I would also like to draw your attention and would like to share with you another set of numbers that we feel very strongly about, the strong investment in the workforce investment system and continue that investment. As you know, more than 80 percent of the dollars through the Workforce Investment Act are sent by formula down to the states and subsequently to local areas. Virtually every state of the union has carried over resources from one year to the next, resources that they have not been able to spend yet, and as long as that continues to be part of this system's financial-management picture, in tight budget situations, both the Congress and the administration seek to balance the availability of funds for programs.

Ms. VELAZQUEZ. Let us talk about the states for a second. Can you please explain the Department of Labor's rule change which ended the practice of states bundling small groups of laid-off workers to reach the threshold of 50 employees needed to access national emergency grant funds?

Ms. DEROCO. That actually was an incorrect press article as well that has appeared in several newspapers. This is in relation to the national emergency grants, which is a small proportion of the dislocated worker funds——.

Ms. VELAZQUEZ. A lot of newspapers across the nation got the wrong information.

Ms. DEROCO. The newspapers often get information wrong. It is, in fact, still the policy of the Department of Labor that there can be bundling, as I believe you called it, where there is a community-wide impact by layoffs within an industry sector or across industries, and the policy of the Department is clear. I would be glad to share with you the guidance that was issued.

Ms. VELAZQUEZ. Will that apply to everybody or just rural?

Ms. DEROCO. I am sorry. Just whom?

Ms. VELAZQUEZ. Rural, rural communities.

Ms. DEROCO. Just rural communities. The ability to go cross-industry is specifically attributable to rural areas.

Ms. VELAZQUEZ. So what about nonrural communities?

Ms. DEROCO. Again, the formula dislocated worker program dollars are available in every local community through their local



workforce investment boards to provide exactly the same services for workers who are impacted in very small numbers throughout country, and there continue to be formula dislocated worker funds available to serve those workers. National emergency grants are an additional, supplemental source of funds for the larger dislocations, and in the case of rural communities, for a larger number of people when across industries or across sectors there is a layoff impact.

Chairman MANZULLO. Congressman Beauprez?

Mr. BEAUPREZ. Thank you, Mr. Chairman, and I would like to thank both of our witnesses.

Secretary DeRocco, I would like to comment on something you brought up. The Community College Initiative and the personal reemployment accounts, I think, are very good solutions. The community college network out my way is doing a tremendous amount of good work.

We did not rehearse this, but I want to go down the avenue that was started by the chairman. I think many times when we talk about reemploying or retraining a workforce, we are talking about solving a problem that has already been created, to a degree, and I would like to see if we cannot lessen the number of problems out there.

The avenue that the chairman started down, I reflect often on the school when I went there, and we did have industrial arts, and we did have some practical training classes available. I am all for higher ed. Four of my kids have taken advantage of it. I took advantage of it, and I want to get as many doctors and professionals out there as we can possibly get, but I think the place that we are really falling down as a society are the many, many, many people that do not feel that that is where they are headed. And as a result, I have talked to a lot of school principals right in my district—I think of Jose Martinez at Jefferson High School there in Edgewater, and he put it very well. He said, I have got to find a way, a purpose, for these young boys and girls, these young men and women, to stay in school, and he said, I am struggling to give them that reason. What is the goal? What is the objective? And too often, they are out on the street because they see that as their path to the future.

He started a nurse-certification program in his school. He is thinking of bringing industrial arts back.

Now, the Community College Initiative, the personal reemployment accounts, if you will allow me, I see that as incentivizing a change in behavior, maybe to coin a phrase. Is there a better way we, as a society, use the Department of Labor? You, Mr. Lewis, I think one of the benefits of being a veteran is you learn how to do things while you are in service to the country. Is there a better way we ought to be incentivizing or providing the tools earlier in life for a broader perspective education? My dad got to eighth grade, but he was never out of work a day in his life because he used these. That is a pretty noble progression. If you work with your hands, it still works for me. Do either of you have ideas you would share with this Committee?

Ms. DEROCCO. Clearly, my colleagues at the Department of Education, clearly, both of us believe, the Department of Labor and the Department of Education, that there needs to be far better career

information available to young people and to transitioning workers, knowledge about what is becoming available in the 21st century economy. There are career opportunities, jobs that we did not think of when we were in school and had never heard of, and they are being created every day.

There is some responsibility on the part of the Department of Education and the Department of Labor to connect the world of work, the realities of education and the various pathways that are available in a post-secondary- education world. The post-secondary alternative should be expanded to create additional pathways to the full array of careers and occupations that are growing and available to our young people and workers, and I think my first recommendation would be that we take a much stronger role together in connecting the world of education and the world of work through good career information and leading to the kinds of guidance that will allow individuals to choose their own pathways and access these resources that are available to them to help them along those pathways.

Mr. LEWIS. I think this is a very, very important issue, and I think it is in a broader context, a broader issue that goes much beyond the educational environment. On one hand, when we talk about hands, I would put it in a different perspective and say that the mind is a wonderful thing if we properly evolve our capabilities to assess issues and be able to use our mind properly. What I mean by that is, all too often in my experience in education, we seem to just be going through the motions.

I have a very personal view, for example, in terms of what a trend is in this country, for example, in distance learning, online education. Having taught, as I said, over 350 courses, I take a very personal view in establishing a very personal bond with each of my students, and I think education is all about that because that emanates from your home, it emanates from your family, and that is where it all begins. And so when I look at the educational models that we have out there, I become very concerned that we are distancing our teachers from our students.

On one hand, I think that to be successful, to be able to reach out, to be able to work with the individual students to cultivate them, to imbue them, because I can only relate to my experiences growing up as a young man, that it is those teachers that took the time to work with me, to encourage me, not through a computer, not through, you know, go enter into some classroom, and you become a part of a group of people, but to truly work with me as an individual. That is where I think that our educational models have gone wrong. I think that our education, we should go back to the focus that it is a relationship that exists or that develops between the mentor, the teacher, as well as that student.

Chairman MANZULLO. Mr. Udall?

Mr. UDALL. Thank you, Mr. Chairman, and I thank the panel for being here today.

I think you will agree with me that the real creators of jobs are small businesses. I do not think there is any doubt about that. And so, knowing that, we should want to get these programs that deal with the issues you are testifying about—education, worker training—to small businesses, and that is very important. And there is

kind of a disturbing trend here, it looks to me, and my question, I guess, is going to the Department of Labor and to the assistant secretary, but you may have an additional comment on this.

The SBA's Office of Advocacy conducted two studies that looked at workforce development in small business in 1992 and 2001. The studies found that among firms with less than 25 employees the percentage who had heard of government training programs was cut in half, from 49.8 percent to 24.2 percent from 1992 to 2001. What I would like to know from the assistant secretary is what initiatives has the Department of Labor undertaken to correct this problem and increase outreach to small businesses. Can you tell us specifically what resources have been used to address this shortcoming?

Ms. DEROCO. That is a very important shortcoming you have identified, congressman, and I would agree with you that the public workforce system and its resources should be known by small businesses and should be accessed by small businesses. As you know, this is a system that has devolved so that local workforce investment boards really oversee the service delivery system in communities, the one-stop career centers, and those local workforce boards are appointed by mayors or county officials, and it is through those boards that there should be broader outreach into the community and marketing of the services that are available. We really do not have as much of a direct federal role other than to encourage the-----.

Mr. UDALL. So your answer would be the Department of Labor itself has not dedicated any resources to this kind of outreach that I am talking about.

Ms. DEROCO. I guess that is not correct. We do have a partnership with the Small Business Administration specifically to work in communities and have dedicated some demonstration resources from our national activities programs to reach into communities and create small business opportunities, entrepreneurial training, and the kind of business training that many small businesses need initially.

We also have a national business engagement consortium that is a number of states that we fund to create marketing materials to be used nationally by the one-stop career centers and the local boards for both small and large businesses. Washington State chairs that national business consortium. And we have full partnerships through which we also have financial support with the U.S. Chamber of Commerce and the National Association of Manufacturers to reach out to the small businesses within their memberships to better connect those small businesses with the public workforce system in communities around the country. I could tally the resources attributed to this and get that to you later, if you would like.

Mr. UDALL. And do you believe that you have dedicated the kind of resources to turn this around? I mean, this is a pretty dramatic drop in a ten-year period, from 49 percent to 24 percent.

Ms. DEROCO. I am not familiar with that particular survey, but I would say nationally we have a minimal amount of resources that are held nationally in this workforce investment system. The majority of the resources are at the state and local level. This cer-

tainly is an area that we work closely with our state and local partners to ensure—have we done enough? Probably not.

Mr. UDALL. Okay. Well, I certainly think the Committee would be interested in the dollar amounts and the specifics of what you have dedicated.

The same study also found that the percentage of small businesses that have ever used government training programs dropped from 15.9 percent to 4.5 over the same period. I am running out of time here, but if you could also try to let us know what the resources were that were dedicated to turning that around.

Ms. DEROCO. Absolutely.

Mr. UDALL. Thank you.

Chairman MANZULLO. Congressman Bartlett?

Mr. BARTLETT. Thank you. I am sorry I could not have been here for your testimony. In a former life, I spent 24 years teaching in technical areas. I also worked in the business world. I worked eight years for IBM.

We face two problems in our country that I do not know the answer to, and maybe you can help. When I was with IBM, we were concerned that we at IBM and we as a country were at high risk of losing our superiority in computers to Japan. I left there in '75, to give you some context for the time. For a very simple reason, we noted that every year Japan turned out more, and at least as good, scientists, mathematicians, and engineers as we did in this country, and we at IBM understood that if that trend continued, we were not going to maintain our superiority in computers.

For the short term, our inability to attract bright young people to these pursuits is a risk to our superiority in economics. For the longer term, it puts us at risk for our military superiority. It will not continue to have the world's best military unless we turn out scientists, mathematicians, and engineers in large enough numbers. If you go to our technical schools today, you will notice that probably a majority of the young people who are there studying are not citizens of this country.

A second problem we have is attracting people to go into skilled areas where they do things with their hands, and today you have to be pretty bright to go along with that also. We now are importing these kinds of skilled people because we cannot produce them through our education system. One of the problems is that you get what you appreciate, and I notice that the White House is not inviting academic scholars and appreciating them the way they invite athletic figures and appreciate them. And I am wondering what your suggestions are as to what we can do as a society to attract more of our bright young people to go into science, math, and engineering.

By the way, today, they are increasingly going into what I consider potentially destructive pursuits. Now, we need a few of each of these, but more and more our best and brightest young people are going into careers in law and political science. Now, we need a few lawyers, and we need a few political scientists, and we have got more than a few of each of those. What is your suggestion as to how we might capture the imagination of our population and inspire our young people to go into these technical careers? I think

this is what really puts us at risk in our competition with the rest of the world.

Ms. DEROCCO. We both have ideas. It is a little outside probably both our bailiwicks in terms of direct jurisdiction over programs, but, again, I would emphasize that in our work through the High Growth Job Training Initiative, in all sectors, from aerospace and advanced manufacturing to information technology and the emerging sectors of biotechnology and geospatial technology, without exception in these forums, executives and educators have pointed to exactly the issues you have pointed to. Number one, we need to excite the young people, which I think we do, first and foremost, by providing information about the careers and the opportunities for growth and prosperity in those careers. We do not do enough of that as a nation, and we have joined together at the Department of Education and the Department of Labor to do that. I think that is critically important.

Interestingly, one of the recommendations that came from one of the forums in which the president's science adviser, John Marberger, participated was precisely your recommendation to have a very specific recognition program, recognition of excellence, for individuals in the engineering, math, and sciences fields to elevate once again, as we have in the past through the space program, the creativity and the ingenuity of our people to choose their own paths into these fields of endeavor that are so needed in every sector of our economy.

Government should not choose pathways for young people or transitioning workers; that is an individual choice. We do have a responsibility to provide good information, to get that information in the hands of those who can make their own decisions about their pathways, and I think that is something that the Department of Education and the Department of Labor are now doing.

Mr. LEWIS. I think there are some very interesting issues here with regard to how do we motivate people to want to spend a career in these types of, as you refer to, doing things with your hands, but more specifically, with scientists and engineers. I was first educated as an aerospace engineer.

Part of the problem, I think, as a society as a whole, in the past, let us say, since the 1996 time frame with the dot com boom and the focus that we have seen in this country where everybody thinks they can get rich quick by doing certain things that tends to take away from that type of emphasis on what I would call those really substantive types of areas in terms of education for science and engineering.

But I think, on the other hand, when you look at the educational environment, and when we talk about mentoring and we talk about counseling, I think, both in our educational systems, secondary systems, but also at the university level, and then even more important, out in businesses, one of the things that I have seen that we have lost, and that is the whole concept—I will put it this way—that businesses, companies, working with their individual employees in terms of career development,—there are exceptions out there, but because of layoffs, because of downsizing, because of those types of issues and the factors that have put so much pressure on companies to not focus on their people, I think, has been

a detriment in terms of this educational focus, and I would argue that we need a return to that. We need to have a more personal touch in working with our people and helping them to develop and focus on their careers.

Chairman MANZULLO. Congressman Franks?

Mr. FRANKS. Thank you, Mr. Chairman, and thank you to the panel here.

Secretary DeRocco, I know that a lot of times government's approach is to find the need, to find the desired outcome, and to try to put our heads together and come up with the best strategies in the planning and training that we can to precipitate that outcome. I am remembering some experiences in state government, and one of the things was it seemed that we were basically reverse oriented at times, and by that, I mean that we studied the problem rather than the successes.

And I am just wondering if there are any models that you are working on that, whatever the job necessities are, if you go and find the young people or the people that are successfully making transitions from another career or from, say, the loss of a job, to that new job, and they do everything that can possibly be done to not only amplify their success but to try to replicate their success and other people's circumstances. Because it seems to me that with the economy, even as complex as it is, and with human behavior, as much more complex as that is, there is almost a genetic code to crack here. Certain behavior is kind of inborn and innate, and we would do far better spending time to try to cooperate with that and to try assist that, and I am just wondering, are there models to try to study successes, whether it is young people or whether it is veterans, or whoever that are successfully going into these new career opportunities and trying to replicate their successes?

I was the Director of the Governor's office for children in Arizona, and when we began to think that way, we had a great deal more success. We studied successful kids, and we found some very basic commonalities, and when we tried to cooperate and inculcate those qualities in others, we had a lot more success, and I am just wondering if that has any bearing here.

Ms. DEROCCHO. Hugely, and it is exactly what we are doing through the president's High Growth Job Training Initiative. We are building on successes in communities where a partnership among employers with jobs and knowledge of what skill standards are needed for workers to be successful in those jobs partner with the educational institutions so that we can create the capacity to enlarge the training available to more workers in those partnerships with our public workforce investment system, which is the source of the human capital.

We look for those partnerships. We are providing incentives through additional funds to grow those partnerships and to replicate them in other communities across the nation. We are also going to highly publicize, through a Web site for the workforce system for all educational institutions and for businesses across America, exactly how these partnerships are put together so that the investment of taxpayer dollars that is devolved through our state and local workforce investment partners can replicate these successes.

So you are absolutely on point. This is the way we make sure that our system responds to success and does not get bogged down in failure.

The other point I wanted to make is that the small amount of national dollars available to the Department of Labor in this devolved system for models and demonstrations nationally are specifically used to model successes in other areas of the country, and we have partnered workforce boards, which are the oversight bodies for our entire service delivery system, in areas where they are successful and meeting high employment retention and earnings gains goals, with workforce boards that have not quite gotten there yet, and this peer-to-peer sharing of successes that is now occurring is very exciting and having great results in building the capacity of the system, raising the bar for the whole system, and its contribution to making more happen for more workers and more businesses across America.

Mr. LEWIS. If I may for the next 30 seconds, we, the Veterans Corporation, in the programs that we are starting in terms of training, entrepreneurial education, we are definitely looking at success models, both in terms of Robert Morris University in Pittsburgh and what we are trying to accomplish in Colorado as well as South Florida, and, in addition, a new concept called "community-based organizations," where we have pilot tests going on in St. Louis as well as Pittsburgh. Both of those efforts, in terms of entrepreneurial education and community-based organizations, are going to provide us the successful templates to carry this throughout the country.

Mr. FRANKS. Thank you, folks, and thank you, Mr. Chairman.

Chairman MANZULLO. Mr. King?

Mr. KING. Thank you, Mr. Chairman. I regret I was not here to hear the bulk of your testimony. However, I would reference in your written testimony, at least, Ms. DeRocco, you make reference to an increasing number of non-English speakers and that language skill is becoming a greater and greater problem.

I am curious about this in a number of different ways, but one of them would be things that are brought to my attention, that we are having American citizens that are maybe second generation that are not picking up the language skills. Would you have any experience with that or any insight into that?

Ms. DEROCCO. I know that that is true, and this is an area where we are building a strong partnership with the Department of Education and the Adult Education program because a significant percentage of individuals who are accessing the adult education programs around the country are second-generation Americans who still have language and literacy issues, and that is impacting their ability to access employment and career ladders. So we need a much stronger connection and much more effective programs.

Mr. KING. Could you explain that phenomenon, how a person can be born in the United States and reach working age and not have English language skills to the point where it is difficult in the manufacturing process to communicate with someone who is a second-generation American?

Ms. DEROCCO. I wish I could explain the phenomenon. You would think that our public education system, if the young people are moving through it, would have attained a level of language and literacy skills——.

Chairman MANZULLO. Secretary, could you pull the mike a little bit closer?

Ms. DEROCCO. Certainly. Absolutely. I am sorry.

Chairman MANZULLO. Thank you.

Ms. DEROCCO. This is an area where our educational system needs to focus far more dramatically.

We also are making the Workforce Investment Act resources available for additional language and literacy training as opposed to vocational training because there is clearly a need in many sectors of the economy.

Mr. KING. But I understand that with regard to people who come here without language skills. I am just going to say, I believe it is something far deeper in second-generation people who do not attain those skills. I am seeing Mr. Lewis with a little bit of animation on this, so I would like to hear from you, Mr. Lewis, on that.

Mr. LEWIS. I have a very specific comment. I am the recipient of what comes from the secondary school system in my teaching in universities, and my comment overall is, frankly, I am appalled at the level of grammar and writing skills that I see in my classes. I emphasize a considerable amount of writing, and I just cannot use the word anymore than it is atrocious.

We need to place more emphasis on going back to the basics of reading and writing and arithmetic. I hate to say that, but the ability to communicate, orally and written, is extremely important, and they have got to learn it at the beginning of their educational process because it is extremely important as you go all the way through the universities, through any types of training programs, and ultimately in business, and if you are going to be successful in business, you have got to be able to talk and write.

Mr. KING. Would there be anything about the multicultural programs that we have in this country that you could identify that encourages development of English language skills?

Ms. DEROCCO. Encourages development of. Actually, I was thinking, as my colleague was talking, that the emphasis in the past perhaps on English as a second language rather than English as a primary language is a problem that might have at least aggravated the situation that you have identified. I am not familiar with research on that topic. I would be glad to look into it.

Mr. KING. Mr. Lewis? Does multiculturalism encourage English language skills or the development of those skills?

Mr. LEWIS. Does it encourage it? From my experience in the educational environment, frankly, from a multicultural perspective, particularly for those students, and someone mentioned earlier in terms of that we are seeing a lot more students from other countries in our colleges and universities, and I have certainly experienced that in my areas, but, frankly, these students are some of the best, and, if anything, they add to the quality of education and the educational environment for what I will call our traditional U.S. students. So both in terms of the desire to learn, the desire to put the level of effort in to learning, yes, they may have, in



terms of actual English skills, there may be some lacking there, but these people add tremendous value to that educational environment.

Mr. KING. And, Mr. Lewis, I agree with that statement. My focus was more on the programs of multiculturalism themselves rather than the reaction of the students, and my sense of it is that as we roll out a multiculturalist agenda, we forget to promote the essential communications skills that make these people that come from all over the world successful in this country, and so I appreciate your insight into that point, and I thank the chairman.

Chairman MANZULLO. Mr. King, thank you. I want to get on to the second panel. We could pick up the sociological aspects perhaps at a different time.

I want to thank you for coming, and then we will impanel the second panel as soon as possible. Thank you.

Mr. KING. Thank you, Mr. Chairman.

[Pause.]

Mr. BARTLETT. [Presiding] I believe our second panel is in place. Thank you all very much for coming. Dr. Beth Buehlmann, vice president and executive director of the U.S. Chamber of Commerce; Brian McCarthy, chief operating officer, Computer Technology Industry; Roger Joyce, vice president of engineering, National Association of Manufacturers; Dr. Ernst Volgenau, chairman and CEO, SRA International; Matthew Coffey, president and chief operating officer, National Tooling and Machining Association; Randolph Peers, vice president for economic development, Brooklyn Chamber of Commerce; and Michael Caslin, executive director and CEO, National Foundation for Teaching Entrepreneurship.

You can proceed with your testimony in that order. All of your written testimony, without objection, will be made a part of the record. We would encourage you, if you can, to limit your remarks to five minutes. Rest assured that there will be more than ample time during the question period to amplify issues of particular interest to either you or members of Congress. Thank you very much for coming, and Dr. Buehlmann.

#### **STATEMENT OF BETH B. BUEHLMANN, U.S. CHAMBER OF COMMERCE**

Ms. BUEHLMANN. Good afternoon, Mr. Chairman, Congresswoman Velazquez, and members of the Committee. I am the vice president and executive director for the Center for Workforce Preparation, a nonprofit affiliate of the U.S. Chamber of Commerce, the world's largest business federation, representing more than three million businesses and organizations.

CWP is on the forefront of helping businesses, especially small- and medium-size businesses, in partnership with chambers across the country, find, use, and build resources to develop a skilled workforce and support productive workplaces. We are addressing a key employer concern, and that is finding, retaining, and advancing qualified workers. Over 90 percent of the businesses that are members of chambers are small and medium size, where the majority of job growth occurs and where you have asked me to focus the emphasis of my statement.

My statement covers three points. First, in CWP surveys of small- and medium-size businesses conducted over the past three years, employers have reported difficulty in finding qualified workers due to lack of skills. In these same surveys, employers state that to remain competitive, they need qualified workers who can perform the job today and adapt to the demands of tomorrow, yet 30 percent of these employers are concerned that the skills of their workforce are not going to keep pace.

Consider that, in 1950, 80 percent of jobs were classified as unskilled and that now an estimated 85 percent of all jobs are classified as skilled. Most jobs now require some post-secondary education, but the growth in the number of workers with education beyond high school will only be one-seventh of what it grew between 1980 and 2000. Many of tomorrow's jobs do not exist today, but we know that they are going to require even greater skills and education.

Second, we know that a significant number of entry-level workers are not equipped with the key skills they need to succeed in an increasingly complex and technological work environment. GAO and other researchers say that training and retraining programs are most successful when they prepare individuals for a specific, existing job. CWP, with state and local chambers, fosters collaborations between post-secondary institutions, employers, and the publicly funded workforce system. Many small- and medium-size businesses, however, do not have the human resources infrastructure to train their workers in-house. They are very dependent on resources in their communities.

Chambers can connect small- and medium-size businesses to these resources and can aggregate the demand of local employers to leverage those resources. They bridge the gap between employers and workforce development providers and services, connecting businesses with the best programs to meet their needs. For small- and medium-size companies, this means that chambers can make the connections with training programs and services that these businesses find difficult to make on their own, in other words, serving as a strong, employer-led, workforce intermediary.

Third, as we look ahead, employers and workers are going to place even greater reliance on levels of education to address the ever-increasing skill demands of a competitive American economy. Lifelong learning for working adults, K-12, and post-secondary education all play a specific role in preparing the present and next generation of workers for the challenges of the 21st century labor market. Knowledge is being outdated at rates that are escalating faster than ever before. For example, a bachelor's degree in business now has a shelf life of just about five years. Clearly, providing continuing education opportunities for employees is no longer an option; it is a necessity to staying competitive.

So what are some of the implications that can be drawn from what I have said? With 73 percent of all post-secondary education students being nontraditional students, in other words, working adults who are seeking additional education and training to return to the workforce, trying to remain current in their field, looking to increase their potential earnings, pursuing another job or even considering a career change in today's demanding economy, the poli-

cies that we have in place need to be examined in light of this growing need.

We can no longer focus only on traditional students as we think about how employers and workers will learn, gain skills, and remain competitive. And with only 60 percent of ninth graders graduating, we need to strengthen our K–12 education pipeline, reduce dropout rates, require a rigorous and relevant high school curriculum, and align high school coursework with what is demanded of our students to enter college and the workforce. I tend to call this the “I don’t know/I don’t care phenomenon,” and I mention that in my testimony. Many of our graduates are prepared for neither college or the workforce.

CWP, in partnership with local chambers, other workforce-development organizations, and our funders, has been instrumental in defining and demonstrating the unique role of local chambers in workforce development and education. My written testimony mentions a few examples of our work with partners such as the American Association of Community Colleges, Job Corps, the National Association of Manufacturers, and the Annie E. Casey Foundation.

In conclusion, any meaningful strategy to combat the nation’s workforce challenges must be met with a comprehensive education and workforce development system. We are already attempting to improve our K–12 system. We must expand our services in the post-secondary education system to accommodate adult working students. In today’s and tomorrow’s global economy, lifetime learning has become mandatory and should be accessible, flexible, and convenient to help maintain America’s competitive workforce.

I thank the Committee, and I look forward to your questions.

[Ms. Buehlmann’s statement may be found in the appendix.]

Mr. BARTLETT. Thank you. Mr. McCarthy?

#### **STATEMENT OF BRIAN A. MCCARTHY, COMPUTER TECHNOLOGY INDUSTRY ASSOCIATION**

Mr. MCCARTHY. Mr. Chairman, members of the Committee, good afternoon and thank you for the opportunity to appear before you today. I am Brian McCarthy, the chief operating officer of the Computing Technology Industry Association, based in Oakbrook, Illinois.

CompTIA represents more than 19,000 member companies in the IT industry, the majority of which are small-to-medium-sized enterprises. CompTIA is committed to fostering the growth of the IT industry by promoting industry standards, and growing professional IT expertise through training and certification, and developing relevant business solutions. CompTIA believes that we must promote public and private sector efforts to provide Americans with the tools they need to compete and succeed. Key among those tools is the acquisition of current and evolving IT skills, skills that are increasingly demanded in order to be successful in today’s economy.

The changes wrought by IT on society are transforming the fundamental nature of the workforce. As global competition intensifies, the dependency on fluent and flexible IT skills will only grow. Not surprisingly, much of the demand for these skills will be for small businesses. According to the Department of Labor, around 92 per-

cent of all IT professional workers are in non-IT companies, and 80 percent of those professionals are working for small companies.

We recently surveyed some of CompTIA's small business partners to assess the challenges they face in training their workforce. We found that it is increasingly important for small IT businesses to equip employees with essential technical training in order to support their clients' complex business systems. Small businesses are leaner and thus require highly skilled employees to perform multispecialized IT functions efficiently. Underlying this challenge is the cost of training.

As a result, small businesses are forced to evaluate alternative means of training. To this end, CompTIA has developed specialized initiatives and public/private partnerships dedicated to IT training and certification across industry sectors. I would like to highlight some of these important training initiatives currently underway, the first of which is the National IT Apprenticeship System, or NIAS, jointly developed in partnership with the Department of Labor.

The program places new workers under the direction of experienced IT professionals and provides a structured program for measuring practical skills and achievements, identifying weaknesses in skill gaps, and applying classroom and on-the-job training to addressing those gaps. Research studies performed by the Department of Labor and by CompTIA indicate that on-the-job training is much more effective when combined with classroom instruction than when delivered on its own.

Key to the success of this program is partnering with community colleges, other educational institutions, and ultimately employers. CompTIA is also currently administering advanced technical skills training programs aimed at closing the skills gap in our nation's IT workforce. Under these programs, nearly 2,700 American technology workers in 12 states will receive advanced IT job training in the coming months in programs administered by CompTIA. Each of these states shares a key characteristic in common: a projected long-term demand for IT professionals in high-skill, high-level positions.

Policy initiatives and public/private partnerships such as these can be designed to buttress the underlying training and reskilling framework needed for U.S. IT-skilled workers today, but getting Americans primed for emerging job opportunities must be a central goal of U.S. policymakers as well as the private sector. While many of these jobs will require a four-year degree, an increasing number of these positions can be filled by graduates of vocational schools and community colleges, as well as through the apprenticeship programs. In this regard, professional certification becomes an ongoing validation across all of these programs. It provides credibility, recognition of achievement, validation of technical expertise, and quality assurance.

Tremendous possibilities abound for Congress to help American IT workers to adapt to broader, IC-centric changes moving through the global economy. For example, programs provided through the Workforce Investment Act and the Perkins Act are extremely valuable. Additionally, early education programs which nurture a child's interest and achievement in math and science are essential

to filling future demands for America's tech workers and should be fully funded. Promoting capital investment in R&D are also key elements of a growth agenda. Just last week, H.R. 4392, the Technology Retraining and Investment Now Act, or TRAIN, was introduced, which provided a tax credit for IT training. Policies such as these will be especially helpful to small businesses, many of whom are faced with substantial hurdles to remain competitive.

America must have a fluid and flexible work force. That is the end goal here. When this can happen, workers can have the tools to remain employed and employable, and companies have the human resources to meet global consumer demand and creating jobs here at home.

Mr. Chairman, I would like to thank you for the opportunity to testify today, and we at CompTIA, our members and staff, stand ready to help Congress understand further the dynamics at play in the U.S. and global economy, especially as they relate to the maintenance and upgrade of IT skills in the U.S. workforce. Thank you.

[Mr. McCarthy's statement may be found in the appendix.]

Mr. BARTLETT. Thank you very much. Mr. Joyce?

#### **STATEMENT OF ROGER JOYCE, NATIONAL ASSOCIATION OF MANUFACTURERS**

Mr. JOYCE. Thank you, Mr. Vice Chairman. I am Roger Joyce. I am vice president of engineering at the Bilco Company, a small family business started in 1926 by my grandfather, George W. Lyons, Sr.

We are manufacturers of architectural-access products, with 200 employees in facilities in West Haven, Connecticut; Truman, Arkansas; and Santa Teresa, New Mexico. We are a member of the National Association of Manufacturers, the nation's oldest and largest industrial trade association, representing 14,000 member companies and 350 member associations serving manufacturers and employees in every industrial sector in all 50 states. Approximately 10,000 of NAM's members are small- and medium-sized manufacturers, of which we are one. I am also vice chair of CBIA, the Connecticut Business and Industry Association, one of NAM's statewide affiliate members.

I thank you for this opportunity to discuss the importance of a strong manufacturing workforce to our country and the workforce challenges that today threaten our competitive leadership in manufacturing.

A year ago, manufacturers were struggling through one of the toughest business climates in recent memory. In order to stay competitive, they tightened their belts on things like capital equipment spending, expansion plans, and hiring and training employees. Interestingly, this may sound somewhat counterintuitive. Oftentimes, the slow periods are the best times to up-skill workers. When facilities do not have to operate 24/7, it is much easier and more cost effective to take people off the line for training. And yet there are still skill shortages in manufacturing, the recent downsizing of two million manufacturing jobs notwithstanding.

Skill shortages remain, and here is why. First, consider the unavoidable demographics of the labor force. The boomer generation, in every field, from teachers to machinists, are starting to retire.

According to one major corporate vice president, the average age of their firm's highly skilled, highly paid machinists is 58 years' old, and there is no pipeline of replacements.

Second, the march of advanced technology is infusing old industrial sectors, like mine, while creating new ones, raising skills requirements throughout the economy and creating serious skill gaps in the labor force.

Third, firms already struggling with these two challenges confront a continuously globalizing economy where competition is intensifying on capabilities as well as cost.

Fourth, young people today do not see manufacturing as a viable career opportunity. Changing the perception of manufacturing will require aggressive marketing of manufacturing opportunities to potential new entrants to the workforce who must have the requisite math, science, and literacy skills needed in today's manufacturing environment.

The recent upturn in the economy changes none of this. In fact, as conditions improve, more job opportunities requiring higher skill levels will be created.

All four of these conditions center on the skills of the labor force, which needs systematic upgrading and expansion. This argues for a new policy approach to workforce development, especially during a recession when hundreds of thousands are idled, many of whose basic education and skills are inadequate or at risk in modern manufacturing.

One approach is to turn downtime into training time, something some of our European colleagues have done for decades. In our business, we use this time to train our employees in the principles of lean manufacturing. As a result, even though business activity will rise and fall, we become a stronger competitor.

Until now, human resource policymakers have seen recessions as storms to be weathered. The labor force policy response was mainly income and benefit maintenance and maybe some relocation assistance. That has been the status quo, and we cannot afford to maintain the status quo. This is not about just fixing the unemployment system. The issues at stake will lead to a declining economy if we constrict ourselves with antiquated systems. We need to ratchet up our skills base now.

We need to make the public workforce system more employer friendly. Supporting the 1998 Workforce Investment Act will help us more effectively match labor market demands with labor market supply. The current administration has made great strides in creating a "dual-customer" system, but we need to sharpen the focus because too few employers know the system even exists, or when they do, it falls short of meeting their needs for skilled and job-ready workers. As effective as the Workforce Investment Act has been, we are disappointed that funding has been reduced 10 percent and urge review of this critical area.

One strategy NAM and the U.S. Chamber have successfully employed, in partnership with foundations and the U.S. Department of Labor, has been to work through their employer-intermediary organizations. In particular, business and trade associations are highly effective organizations for small business, allowing our voices to be heard and providing opportunities for us to participate

in the employment and training system that often are only available to large corporations.

One example of this is the three-year, \$2.2 million, U.S. DOL demonstration grant for incumbent and dislocated workers, which CBIA received in 2002 to assist manufacturers with job training. Despite the recession and loss of manufacturing jobs in Connecticut, CBIA, working with both community colleges and private contractors, was able to provide training assistance to 23 companies, train over a thousand employees who took 126 courses in 60 different training areas. Courses in lean manufacturing, Six Sigma, supervisory training, teamwork, blueprint reading, CNC machining, and laser and fuel cell technology, as well as English as a second language, were made available to employees through this federal grant program. Participants in this program were better prepared for their current jobs and able to move more effectively into higher level positions.

Unfortunately, it is my understanding that this demonstration grant program has been eliminated. As a result, after June 30, when this grant is completed, CBIA will no longer be able to assist manufacturers in a way that works so effectively for us. We feel that such programs should be restored and, indeed, expanded.

We need to support our community college system. The president has made it clear that he does. Community colleges are the backbone of the worker education and training system, and we need to increase our investment in our communities by supporting their growth and connection to their local employers. Gateway Community College serves the greater New Haven business community by developing programs that address our specific requirements, even employer by employer, if necessary.

We also need to ensure that our citizens have the financial aid they need to get access to post-secondary education that will give them good jobs and family-supporting wages. We need action on the Higher Education Act to ensure that access to funds is streamlined and available when needed, and we certainly need to strengthen the ties between higher education and the workforce needs of business.

The Bilco Company is a small manufacturer, but we compete in the world marketplace. Ten years ago, we sold our products in five countries. Today, we sell in 65 countries. Our workforce must be at least as skilled as our competitors' in other countries, but we are losing this battle. The Department of Labor estimates that the skill shortage I have described will affect 10 million workers by the year 2010.

A new program in Connecticut is starting to make a difference. We actively support the Connecticut State Scholars pilot program in New Haven. This program connects the school district with business to encourage eighth graders to choose a more rigorous curriculum in high school. Upon completion of this program, they are in a much better position to enter the workforce, the military, or pursue higher education opportunities. This means they are better able to compete with their peers around the world.

I encourage the Committee to support the initiatives I have presented so that manufacturers like myself are in a position to compete, to grow, and to create new jobs. I thank you.

[Mr. Joyce's statement may be found in the appendix.]

Mr. BARTLETT. Thank you. Mr. Joyce, does your company make the outside-access door for basements?

Mr. JOYCE. Yes, we do. That is the world-famous, Bilco basement door.

Mr. BARTLETT. It is, indeed. I would just like to note that when I was growing up that more people referred to the refrigerator as the "Frigidaire" because the Frigidaire had so dominated that market, and when you were going to buy an outside, basement-access door, you were going to buy a Bilco door, no matter who made it, because you have so dominated the market in quality and recognition.

Mr. JOYCE. Yes. Thank you, Mr. Chairman. My grandfather invented that product in the backyard shop, and it really was the genesis of our company, and it is a model of ingenuity, of entrepreneurship, that we still follow today. Thank you.

Mr. BARTLETT. And you are selling it in 65 countries today. Congratulations. Thank you. Thank you.

Mr. Volgenau?

#### **STATEMENT OF ERNST VOLGENAU, SRA INTERNATIONAL**

Mr. VOLGENAU. Mr. Chairman and members of the Committee, my name is Ernst Volgenau. I am chairman and CEO of SRA International, and I am representing the Information Technology Association of America, where I am chairman of the Workforce Education Committee.

The Information Technology Association of America is a leading trade association for the information technology industry. ITAA has 380 members, and SRA International is one of them. ITAA member companies represent a broad spectrum of industry sectors: computer software and services, e-commerce, enterprise systems, broadband communications, and other areas. ITAA represents companies of all sizes, from large, multibillion-dollar enterprises to small, entrepreneurial firms.

I appreciate the Committee's interest in small business. I know what it is like to be part of a small company. I started SRA International in the basement of my home in 1978. Today, SRA International is an information technology consulting and system-integration company having revenue of about \$600 million and about 3,300 employees. We have been on the Fortune magazine list of best places to work in America for five years in a row. Last year, SRA devoted about 65 percent of its subcontracting dollars to small businesses, and we try to treat each with fairness and respect.

We very much appreciate this Committee's support for worker training, which is essential to the economic health and vitality of our country. The increasing emphasis on information technology has produced fundamental changes in the skills and work performed by the average American. As the U.S. shifted from a domestic, industrial economy to a global information economy, our workforce has changed, too. Many workers are concerned about how global sourcing, sometimes referred to as "offshore outsourcing," will affect their jobs. A recent study by ITAA and Global Insight shows that offshore outsourcing causes the entire U.S. economy to



perform at a higher level and actually produces a net gain in jobs and wages over time.

Regardless of global sourcing, the American IT industry is still the world's leader, and that is not going to change anytime soon. However, the global marketplace for IT is becoming more competitive. Americans must recognize this and adapt to a changing economic environment through education, training, and retraining.

Small businesses play a key role in ensuring our high-technology strength. They provide technology innovation, entrepreneurial vitality, and entry points for many seeking IT jobs. Small businesses generally hire workers from local communities and so have a major stake in ensuring that these individuals are adequately educated and trained. Education and training of American workers are essential in this increasingly competitive world. U.S. high-tech leadership is significantly aided by the nation's robust education and training infrastructure, institutions of higher learning, community colleges, private technical colleges, e-learning certification programs. All of these make contributions.

In view of this, ITAA has four basic recommendations or observations. First, industry and the federal government should strengthen partnerships and better identify local training needs. For example, local workforce investment boards are building partnerships involving employers, community colleges, and other community organizations. Community technology centers in economically disadvantaged communities give people hands-on access to technology. These centers should be considered for use as a possible model to disseminate entry-level training.

Second, companies must be aware of training resources available through various workforce-development programs. Businesses, particularly small businesses, should participate more actively through state and local workforce boards and government one-stop centers so that the communication loop is closed between those who provide training and those who need appropriately trained employees.

Third, the American Society for Training and Development, ASTD, is a leading association of workplace learning professionals. ASTD notes, in their state-of-the industry report, that the technology sector spends more on IT training than any other sector surveyed. IT companies have developed innovative approaches to the use of e-learning and delivering workforce training.

Fourth, the government should revise its education and training policy to help build the competitive advantage of small businesses. Now, ITAA has a number of recommendations here ranging from the H1-B training fund to No Child Left Behind, but in the interest of time, I am going to just refer you to the written testimony and say, in conclusion, that America's future clearly depends on the availability of an educated and trained IT workforce. Government, industry, academia, and individual workers share a common purpose and must work together to produce a high-tech workforce that meets the demands of the new century. Thank you.

[Mr. Volgenau's statement may be found in the appendix.]

Mr. BARTLETT. Thank you. Mr. Coffey?

**STATEMENT OF MATTHEW B. COFFEY, NATIONAL TOOLING  
AND MACHINING ASSOCIATION**

Mr. COFFEY. Thank you, Mr. Vice Chairman. Ladies and gentlemen, as the eighth witness on this single subject, my challenge is not a problem of knowing what to say; it is how to make it interesting to you. You have my written statement, and what I would like to do really, then, is just reflect on some of the fundamentals, as I see them.

As you know, I represent the tool, die, precision machining, special machine-building industry in the United States, a trade association that has been around for 61 years, focused on education and training as its principal purpose. We have been dealing with the federal system of training and education for that entire period of time, and there is a certain point at which you say, when you look across the spectrum of federal programs and see 175 or 178 programs in this area, never has so much money and effort gone into produce so little result because we do not really see a major improvement in the quality of the applicants showing up at the door of the company.

Human resources, of course, in any manufacturing company represent the competitive advantage, and in the present manufacturing environment, of course, the biggest single thing that you need to have is pricing power, and that is only available to you in this kind of a market where you have innovation, and innovation only comes from highly educated people thinking about the solution of customers' problems.

We, at the same time, are experiencing a tremendous demand for continuing education, for continual learning on the part of the incumbent workforce while most federal programs are focused on entry level or focused on creating new entrants into the industry as opposed to upgrading the skills of those presently in the industry.

Now, small, high-tech companies carry a heavy training expense burden. There is no question about it, and they have been doing it for years. Their competitors around the world do not have that same burden. They wind up having educational systems that make skills training mandatory from kindergarten through college and do not give students the option of one track or the other. I think, fundamentally, in education policy, we made a mistake when we divided those two, and in dividing them, we created a problem which we are living with at this point in time.

The federal government, until 1993, when it got into the block grant programs, supported industry-specific training, but once it went into block grant programs, sent the money to the states under formulas, the states wound up using that training money to attract foreign investment instead of training incumbent workforce or training people at the entry level.

So we have got a system that has not worked too well and that is designed for academic achievement, not mechanical skill, and as a result, as you heard earlier, more than 50 percent of applicants show up deficient in one way or the other, not knowing math, not knowing science, not knowing some of the skills that we need in our particular manufacturing industry. And the one truth that I think most people will come to is that technology is only as good

as the user. You can have a very sophisticated computer sitting in front of you or a very sophisticated machine tool. If you do not know how to use it, then, you have wasted your money on the technology. So software and hardware technology are changing all the time, and workers need to be changing with them, need to be learning, need to be upgrading their skills.

I really think it is time to change the federal approach, and I think we are working very hard as an organization to try to do that. I think we do need to think about once again having national training programs that are industry specific, picking those industries where we see the opportunity for continuing innovation and development and having specific national programs that lead in that direction.

We have been talking for years about tax credits for small- and medium-sized businesses to ensure that they will invest in training. We have been unable to get very much support for that at any level of government here at all, but it is a real necessity.

Third, I think we need to support changing the training infrastructure. We need to use the technology available to us to deliver material to people where they are, when they need it, what they need. That says that we need to use distance learning, we need to use it effectively, and we need to break away from the patterns of the old system, the old structure.

And, finally, I think we need to have better federal program coordination. We have all of these programs. We have no one coordinating the efforts and the activities, and whether you are talking about the DOL or the DOC or the DOE or the TAA program or the MEP program or any of the programs that were talked about earlier, they are all little, narrow smokestacks that do not work together, that do not effectively deliver a product to the manufacturing company, and that is the great frustration.

So I think we have a lot of work cut out for us. I appreciate the interest of the Committee in this subject. It is a subject I have been working on for 25 years of my career and one in which I would hope that we can start a process that does start to solve some of the problems that we face in manufacturing. Thank you.

[Mr. Coffey's statement may be found in the appendix.]

Mr. BARTLETT. Thank you very much. Mr. Peers?

#### **STATEMENT OF RANDOLPH PEERS, BROOKLYN CHAMBER OF COMMERCE**

Mr. PEERS. Good afternoon. My name is Randolph Peers, and I am the vice president for economic development at the Brooklyn Chamber of Commerce, and that is Brooklyn, New York. I want to thank the chairman, Congresswoman Velazquez, and the rest of the Committee for having me here testifying today.

Just a little background on Brooklyn. Brooklyn is the most populous of New York City's five boroughs, with a population of two and a half million people and over 36,000 businesses. The majority of these businesses, some 67 percent, employ between one and four workers, making Brooklyn home to a true small business economy.

In my testimony today, I would like to share with you the small business perspective as it relates to issues of education, training, and workforce development based on the Brooklyn chamber's seven

years of direct involvement in providing workforce services to its membership.

In May of 2004, the Brooklyn Chamber of Commerce released the results of a comprehensive, labor market review it conducted with support from the U.S. Chamber of Commerce's Center for Workforce Preparation. While I will not bore you with industry specifics about Brooklyn, I do want to touch upon the statistics with respect to recruitment and training by small businesses.

Forty-two percent of Brooklyn businesses indicated a willingness to hire additional workers this year, up from 20 percent that actually did hire last year. That is a good thing. Of those businesses that did hire additional workers in 2003, 32 percent indicated that they had a significant problem recruiting skilled or professional employees. Of those organizations planning to hire, small businesses struggled the most with recruiting skilled and professional labor, including supervisory employees.

While 82 percent of businesses overall indicated that they provide some sort of worker training, the majority, 66 percent, identified the training as informal and on the job. The number of small businesses indicating that they provide informal, on-the-job training jumped to 82 percent.

Brooklyn businesses were evenly split over the importance of a college degree, with 49 percent indicating that a degree was important or very important. Small businesses seemed to value the degree least, with only 38 percent indicating a degree was important.

And, finally, only a small minority of businesses of all classifications turned to the publicly funded workforce-development system for either recruitment or training assistance. Predictably, small businesses were least likely to utilize the system.

The statistics contained in this labor market review give us a snapshot of a predominantly small business economy in transition. On the positive side, there were signs of emerging new sectors in the economy in finance, insurance, real estate, construction, and tourism. These jobs will require higher skills while offering more career-ladder opportunities for residents.

By contrast, however, many of the existing businesses are experiencing several obstacles to recruitment and training, especially amongst the skilled professions. Additionally, a majority of these same businesses are small- and mid-sized companies, representing a myriad of obstacles that prevent them from taking advantage of the public workforce system and its resources.

In many cases, an absence of a formal human resources department or a basic lack of capacity to deal with workforce issues represents the most significant challenge. Small businesses tend to focus more on immediate, bottom-line issues, not recognizing the impact of staffing, training, or employee-retention issues and the effects that they can have over the long haul. In other cases, it was simply a lack of awareness that prevents businesses from taking advantage of the public workforce-development system.

Lastly, many small businesses have ambivalence towards working with what they perceive as a government-run program that appears too bureaucratic or too social services oriented.

Since 1998, the Brooklyn Chamber of Commerce has operated a successful staffing service for small business. This program, called

Good Help, has been at the forefront of providing various workforce-development services to the small business community by acting as an intermediary between such companies and the public workforce system and acting as a partner in the public workforce system. For small businesses, the advantage in such a service can be many. For many businesses that lack a human resource capacity, the chamber can provide the expertise to fill the void.

In addition, these businesses are already working with the chamber of commerce in other ways, and the comfort of working with an established relationship increases the likelihood that the smaller employer will see the benefit in such programs and, over time, will access other publicly funded, workforce-development services.

But while it is clear that business intermediaries can play an effective role in any workforce system, we must also acknowledge the need to create better synergy between economic development and workforce development. It is my belief that without greater integration, the success of any workforce-development initiative, including training initiatives, will be limited.

To a certain degree, through industry-specific training initiatives, many cities are beginning to create this coordination, but we must be mindful that such large-scale training initiatives tend to benefit larger businesses that bring many jobs to the table. It is also important to recognize that small businesses, even in similar industries, have differing needs as opposed to larger companies when it comes to worker training.

Whereas larger companies may be looking for higher-tech training as a means to increase worker proficiency in a particular field or on a particular piece of machinery, small companies tend to have more elementary training needs. Adult basic education, English language skills, critical thinking abilities, and soft skills proficiency are more likely to be cited by a small business as a training need.

We also would like to point out that small businesses are more likely to hire lesser-skilled workers because they cannot compete with larger businesses with respect to wages and benefits. Therefore, the need for incumbent worker training that leads to career-ladder opportunities geared towards basic skills is critical for the long-term success of both the employer and the employee.

Also, smaller businesses in well-established industries need a more generic basket of services that includes basic business assistance not directly related to workforce development. Such services include help with financing issues, basic business planning, access to information on nonworkforce-related incentive programs, marketing and promotion assistance, access to procurement opportunities, guidance on technology issues, and basic technical assistance related to compliance matters. It is through this type of basic development support that smaller companies become mid-sized companies and ultimately employ more workers. In these cases, the road to increased WIA outcomes is long and winding.

On a system-wide level, more cities and states are examining ways to create better synergy between workforce development and economic development. In New York City, for example, last year, the Department of Employment was merged into the Department of Small Business Services. In Idaho, Governor Dirk Kempthorne

recently announced the state's intention to merge its labor department and its department of commerce.

In conclusion, government should play a powerful role in helping to foster greater integration between economic and workforce development beyond what is promoted through existing WIA legislation. Such integration will, in the long run, help not only large businesses, but will also empower smaller businesses to grow and become more competitive. In this process, small businesses will take advantage of workforce development and training services. Increased awareness and participation by small businesses in the workforce-development system will help to make the system more responsive to business needs and more in step with industry trends.

Some suggestions for promoting a business-driven system that is more responsive to small businesses include: number one, encouraging policies that foster greater collaboration between business, education, workforce training providers, and the public workforce-development system; two, encourage policies that integrate workforce and economic development; three, create ways to promote and encourage the inclusion of intermediaries like chambers of commerce and trade associations in the marketing and delivery of workforce services as partners in the system; four, through WIA, mandate specific business services outcomes, not just job-seeker outcomes, in an effort to make the system more accountable; number five, expand opportunities and lift restrictions on incumbent worker training programs to allow for a wider range of training options; number six, allow WIA funds to be used for limited economic-development activities, create new tax incentives and wage-subsidy programs that promote new job creation as well as job retention during economic recessions; and, finally, support efforts to increase local labor market information designed to predict industry and business trends. Thank you.

[Mr. Peers' statement may be found in the appendix.]

Mr. BARTLETT. Thank you very much. Mr. Caslin?

**STATEMENT OF MICHAEL J. CASLIN, NATIONAL FOUNDATION  
FOR TEACHING ENTREPRENEURSHIP**

Mr. CASLIN. Thank you. The title of my presentation is "Where Will Our Next Generation of Entrepreneurs, Our Next Generation of National Wealth Creators and Manufacturers Come From: A Call to Action for the Development of an Entrepreneurial Culture for All Americans."

I have been CEO of NFTE, the National Foundation for Teaching Entrepreneurship, for 16 years. NFTE is a New York City-based, globally focused, entrepreneurship education foundation. The testimony I have submitted is 34 pages, which reflects our thinking over the past 16 years of working in the most impoverished communities in the world, with multigeneration, unemployed families, and how to improve their plight.

I am touched by Chairman Manzullo's approach to getting to know the people who testify here today. I wanted to share with you my background. I am a grandson of a Gaelic-speaking, immigrant farmer who escaped poverty from Ireland, who came to the United States, and the one job he could get was as a mucker for the New

York City police force stables. He died digging by hand the 34th Street tunnel of New York City.

My grandmother and mother survived on widow's assistance and welfare and family support, and my mother worked throughout high school to support her mom and herself, and even at the young age of 75 years today, works every day.

I am a son of a proud union steamfitter and photo engraver. I am a first-generation entrepreneur, a first-generation college graduate, with two sons currently enrolled in college, each of whom have their own business, and a teen daughter who is college bound, and she also has her own business. Growing up, when I went to school, it was be good, do good in school, and someone will give you a job. No one said you could create your own job. While I worked 17 jobs from the time I was nine, I did not know I was a micro-entrepreneur. I knew I had to work to earn money.

My children and NFTE children know the difference between a job and creating a job and being an entrepreneur. For the last 16 years, NFTE has championed entrepreneurship education for America's low-income teens and young adults, especially for African-American and Latino youth. We have seen firsthand in programs in Brooklyn, New York City, Baltimore, Chicago, Arizona, New Mexico, First Nations, Toledo, Ohio, tremendous entrepreneurial potential. The issue is not only to attract bright and young people to this economy that is changing but also to unleash the talent of many young people who are turned off to life right now.

If you go into many schools across the country, and you mention IT opportunity, you will have blank stares. Very few of them are aware of what "IT" means, and very few of them are enabled to pursue opportunity in the IT field in any way, shape, or form. We have found that over 60 to 70 percent of our students have never been inside a bank, so their knowledge of financial literacy and formal banking processes is very limited. Eighty percent of our students who form their own businesses are first-generation entrepreneurs, and I ask the Committee to consider that the motivation, why are we engaged, why we should learn this, is something that must be looked at in addition to the skills that are needed.

We have seen all across the world the demand for the NFTE program, and that demand is really in the form of American business English and American entrepreneurship as a second language. There is a tremendous motivation to understand the code and the culture of entrepreneurship.

As a lecturer at Harvard Business School and Stanford Graduate School of Business, Dartmouth—School, Duke, and an adjunct professor at Manhattanville College and also Babson on entrepreneurship and philanthropy, I can tell you firsthand that the code of wealth creation is not getting out. The understanding of how to participate in this economy is not getting out.

We have seen, over time, young people, ages 11 to 18, become more economically productive members by learning the entrepreneurial process. Our strategy is to partner with schools, universities, and unleash experiential curricula, train and support youth workers.

N.F.T.E. started as a 'dropout'-prevention program, and we are now positioned as a turn-on program in school districts across the

country, as well as in partnership with a number of community-based organizations, and it is our opinion that ownership and ownership attitude and ownership perspective is also one of the most ultimate technologies that could be promoted.

The state of being literate in entrepreneurship really brings with it a joy and a value and a creativity and understanding of the wealth-creation process. Young people can begin to see how they fit in the macro and micro-economic production structure, the value chain, where they can contribute, and how they can help the nation. We can and must promote this awareness for all Americans, especially our youth, especially those living in poverty today.

I am honored to represent NFTE today because this is the month where we will have graduated our one-hundred-thousandth young entrepreneur. It is a very special time for us. We started, again, in a single site in Fort Apache in the south Bronx as a dropout-prevention program.

How did we do it? We did it with the private sector help. We have had a coalition of over 500 private sector sponsors, including Goldman Sachs and Microsoft. Microsoft helped NFTE create the first entrepreneurship learning system in the world on the Internet for teens and young adults. The Shelby Davis Foundation, NASDAQ, the Sandberg Foundation, Weinberg and Atlantic Philanthropies. Atlantic Philanthropies' Charles Feehey, the founder of Duty Free Shops, has taken an idea, created \$3 billion in value, and is now giving it back to help disadvantaged youth in Ireland, the U.S., and South Africa.

In addition, the U.S. SBA, the U.S. Department of Education, and cabinet-level members—Secretary Evans, Secretary Paige, and Secretary Chao—have all been to see NFTE in action.

One of our leverages is to use university partners. We partner with Babson College, Carnegie Mellon, Georgetown, Northwestern, Stanford, Yale, and Columbia. We do that in order to get their code of wealth creation. We have identified, in working with them, 1,400 key concepts, behaviors, and practices of entrepreneurship that most adults and most young people are never exposed to.

Our mission as a charity is to bring that code of the businesshood, the code of wealth creation, out so that young people can get turned on. We are experiencing this not only in the United States, where we have teachers now certified in 46 states, but we are also active in the U.K., Holland, Belgium, Germany, and Ireland, India, Argentina, countries in Africa, Latin America, and China. It seems that globally entrepreneurship is one of the fastest-growing languages in demand.

Our long-term objective is to enable each low-income American worker and first-generation business owner to be sparked with the powerful knowledge of entrepreneurship and to help ignite what Policy Analyst Mike Novak refers to as "the fire of invention," get people turned on.

We have hope here at NFTE. We see dropouts every day. We know that they are heading for a state of despair, not to a career. Why are they giving up the American dream? We spend many, many hours with them trying to understand that. Oftentimes, it is because no one is showing them how to dream it and how to achieve it, and many do not believe it exists. Even within miles of



this hearing room, we have programs in Anacostia High School where many young people just do not believe the American dream exists for them.

What can we do? Well, we have to work together through more effective public policy, more innovative education curriculum, higher demands of our citizens. We have hope because we have conducted seven major research evaluations on the impact of teaching entrepreneurship to young people. We work with Harvard, Brandeis, Columbia, and Babson College Center for Entrepreneurship. We have been able to show that occupational aspirations have increased because of viewing the world as an entrepreneur. We have been able to show that independent reading, self-motivated reading, occurs once a student gets turned on to the possibilities of entrepreneurship. We have also been able to show that Latino youth become more engaged and stay more engaged in school as they learn how to not only earn money for their families as well as see the value of school and why they are there.

We had a comment from Dr. Andrew Hahn of Brandeis University: "NFTE succeeds in teaching the skills and knowledge that are important to helping prepare young Americans for careers in business ownership." We have been able to prove the entrepreneurship knowledge increases by 20 times. Actual business activity rates increase by 30 times the amount, and in our conversations today, we are able to make sure that our young people understand that there are four types of business in the economy today: wholesale, retail, service, and manufacturing. Being able to understand just that one element and how you can fit and how you can flow between those four areas is mission critical.

While we have grown from a single school in the south Bronx near Yankee Stadium to truly a global movement, we also know that to be competitive in our world economy in the future, we must create it today over the next decade. Manufacturing is a key part, and young people can pursue careers as entrepreneurs in all types of businesses.

It is our founding premise as a nation that the essence of a democratic capitalistic society lies squarely on the shoulders of each generation of productive, responsible, and business-competent Americans. We can never take this for granted. We can work together. We can create a greater strength and a greater competitive position for our country, and we will see it in the face of our children. Greatness can exist again in many cities where it is fading. We look forward to working with the members of Congress here to assure that, and we are ready to stand with you. Thank you very much.

[Mr. Caslin's statement may be found in the appendix.]

Mr. BARTLETT. Thank you and thank you all very much for your testimony. Ms. Velazquez?

Ms. VELAZQUEZ. Thank you for your testimony. This has really been quite helpful to us, and we know that we need to do better in terms of putting a comprehensive approach in the area of training, retraining, and helping small businesses.

Mr. Coffey, you mentioned that there are so many training programs throughout the federal government, and we all know that they exist in the books, but one thing is the number of 140; the

other thing is that some, more than one third, have either been flat funded or their funds have been cut. We have an example here of a pilot grant program in Connecticut that has been working beautifully, and yet at the end of your grant, that program is going to be zeroed out.

So what we need to do is really if we want to continue to be competitive and create the meaningful jobs that we need, we have to identify those programs that really can help provide the tools and the training that will enable small businesses to be able not only to hire but to keep those workers.

Another area is how can we help small businesses in the area of training and retaining those workers? We work together FREA, and I worked with Chairman Talent, who passed that legislation that will provide tax credits to small businesses for workers' retraining and training, and yet nothing happened. Has there been any discussion in terms of that legislation?

Mr. COFFEY. The latest discussions I have had have been with Senator Collins on the Senate side, who did attempt to put a tax credit type of provision into the Foreign Sales Corporation extraterritorial income bill, and she has now been joined by Senator Reed from Rhode Island as well in trying to put a bill together that would possibly be introduced in this session. Obviously, we have not introduced anything on this side, and we have gotten no response out of the administration to this idea.

The nice thing about it is that what you are asking for is an incentive to get employers to engage in the expenditure necessary to train people. You are not asking for the federal government to pay for the whole thing; you are asking for them to give them a tax credit that is probably a tenth to a third of the cost of what they would actually expend in the training. I look forward, if we can start to build some momentum, to work with you again to try to get this legislation moving.

Ms. VELAZQUEZ. The other thing is the Trade Adjustment Assistance program and the Manufacturing Extension program, both of which you mentioned in your testimony, that really are an example of programs that can get training and education to places where we need it the most, and they have proven to be effective, yet on this budget, Fiscal Year 2005, they are slated to be cut.

So it seems to me that there is a disconnect between what is going on in this country in terms of our economy and small businesses as job creators and the tools that we need to provide, and there is a role for the federal government to play in helping small businesses.

I would like to ask Mr. Peers and Mr. Caslin and Mr. Joyce, I know that in your program you provide English as a second language. In your experience, Mr. Caslin, do you feel that Latino youth, they are not willing, or they resist integrating, learning English as a second language?

Mr. CASLIN. No. I think that they want to see a way to pace themselves in to get connected, some type of process. We see the motivation there, and there is also an engagement strategy that once the students start to understand some of the concepts, the motivation to possibly read more increases without question.

Ms. VELAZQUEZ. We just called New York City, the department of education, and we asked for the number of applicants that are on a waiting list, and they are telling us 90 percent of all applicants are on a waiting list in New York. So the problem is not that people do not want to learn the language; the problem is the services and resources that are available.

Mr. Peers, you mentioned a variety of specific initiatives throughout the country in places as diverse as Idaho, Florida, and New York. What is the advantage of those local initiatives? By what means are they encouraged, and how are the lessons learned shared throughout the workforce-development community?

Mr. PEERS. I think that the biggest advantage is communication. Quite often, economic-development initiatives are going on over here, workforce initiatives are going on here, and as many of my colleagues here on the panel have already said, you know, we need to refocus our training efforts and make sure that they correspond to industry trends and to jobs of the future. That cannot happen if the two worlds are not talking and coming together.

So first off, it is communication, and then, secondly, I think, once that communication occurs, they start to realize that there are very similar goals, that you cannot have effective economic development without a good workforce, and you cannot have a good workforce without having the jobs available to meet those worker needs and to grow your economy. And then you start to see more and more the leveraging of resources in creative ways, in ways that allow a maximization of efforts on both fronts. So those are the two key benefits of bringing those two together.

Ms. VELAZQUEZ. Thank you, Mr. Chairman.

Mr. BARTLETT. Thank you. I was born in 1926, and so, through my life, I have seen a lot of technology changes. We still plowed the fields with horses when I was a little boy.

Some feel that some of these technology improvements have had a dark side as well as a bright side. One of those is air conditioning. Many people would argue that our country really started downhill when they air conditioned Washington so that Congress could stay here through the summer. I think it was Will Rogers who noted that anytime the legislature is in session, the Republic is at risk, and I think that we had a kinder, gentler, less-intrusive government before we had air conditioning, and we could stay here, focused on mischief through all of the hot summer.

A second technology improvement which I think, arguably, has had some very negative effects is television. I note that the more people watch television, the lower our SAT scores were in our schools. So through all of those years when television was becoming more and more important in the home, why, the SAT scores were dropping lower and lower in our schools.

Our higher education institutions are a marvel of the world and the envy of the world, and to know that all you have to do is to go there to see who the students are, and most of them are not students from this country because students from all over the world come there.

A little bit ago, there was a survey done of the graduates of our secondary schools in 21 countries, and we were thankful for Cy-

press and Sri Lanka because of the 21 countries they were the only two whose young people scored lower than our young people scored.

All of you have been talking about education and training, and Mr. Lewis from the previous panel noted that if he was going to choose one word to denote the quality of the young people who came out of our K-through-12 system, it was atrocious in terms of their preparation in education. Clearly, how could we have, far and away, the best education system in the world in our graduate schools and one that is not far from the basement? Of all of the industrialized, civilized world, I think we rank at the bottom. How did we get there? Why are we doing such a tremendous job in our graduate schools and such a lousy job in our K-through-12? To what do you attribute that? Let us just go through the panel and tell me what you think. How did we get there, and what do we need to do to get out of the basement?

Ms. BUEHLMANN. I think one of the distinctions that you have to make is you have a universal K-12 system, and if you are going to make it relevant to students, it is getting back to understanding why they are there, the context for their learning, what relevance it has to what they are going to do next, and seeing a path for them to be able to get there.

I think this is also true for our teachers. I think we have to create a system where people understand that the skills that are needed to go into the workplace or into higher education are very similar and that we should get away from the notion of a lockstep education system and instead create significant on ramps and off ramps so that individuals can participate in education, understand the relevance of it, apply it, and be able to use it to advance themselves, both in post-secondary education and in the workplace. We also need to do the same in terms of our college students when many of them are graduating from college and going back to community colleges in order to get skills that are relevant to the workplace. We have to better understand that the skills of the workplace, in fact, are many times more difficult and more complex than our going to our institutions of post-secondary education.

And, finally, I would suggest that we encourage people to learn throughout their lives, understand that they can get certificates and advance through those certificates, accumulate those certificates towards degrees, if they choose to, but that it is not necessarily a lockstep situation, and that parents need to understand that going into the workplace and being able to go back into education has as much relevance as continuing on and getting through it in one fell swoop.

So I would say it is relevance, and it is connection to the path that we are pursuing.

Mr. BARTLETT. I think most of our people understand the need for lifetime education because the technology is changing so rapidly. But we have graduated, I think, more than a million people from our high schools who, quite literally, could not read their diploma. Shame on a society that permits that to happen. I think you were addressing that in your lockstep, that you cannot just——

Ms. BUEHLMANN. I think we also give up. There are many people who believe that if a child cannot read by the fourth grade, they

are never going to be able to read, and we have programs now that indicate that in high school we have inventions we can use to teach literacy, to encourage students to see the relevance and be able to read again and connect with the world. If they are shut off at a very early age, and we give up on them, we are going to have a group of people that are not going to be encouraged to learn.

Years ago, there was a book written called *Pygmalion in the Classroom*, and basically if we set our expectations for students not to achieve, they are not going to achieve. And so I think we have to turn ourselves around and understand that at every step of the way if we engage the student, we believe in them, we are their advocates, they will achieve, and I think we have lost that in terms of our schools today, and I think we need to regain that.

I would also say that if you want to talk about some things that would encourage English as a second language and perhaps even adult basic education, to look at such tax incentives as Section 127, which is only allowable right now for college degree credit. Why not allow some of that to also be used for English-as-a-second-language training and adult basic education so we can expand the opportunities of those individuals that do not have those basic skills but need them to invest in the workplace?

Mr. BARTLETT. Bill Bennett, who was President Reagan's secretary of education, tells a very interesting story. After they decided that they were not going to be able to shut down what they thought was an unconstitutional federal Department of Education, they set about trying to determine what worked and what did not work in education, and they found two schools. I think they were both in Illinois. One of them spent twice as much money per child as the other one, but the poor school, the school that spent only half as much per child, year after year, had higher achievement scores on the tests.

And so Bill Bennett went to visit these two high schools in Illinois to see what was going on there, why the school that had only half as much money for their kids every year scored higher on the achievement tests. And when he arrived at the school and met the principal, he said, How is it going? The principal said, We have got it tough here. We do not have much money. About all we can do is teach the three R's. And if you will think about what we do with additional money when we give it to our schools, almost always they commit it to something that competes with the three R's.

The teachers do not want to teach any more hours in a day, parents do not want their kids going to school any more days in a year, and so when we give more money to education, think about what happens to the additional money you give. Very frequently, doesn't it support programs that compete with the three R's? I think that it was no accident that this school that had little money had kids that scored better because, as the principal said, About all we can do here is teach the three R's.

In a former life, I was privileged to teach for 24 years. In this world, by the way, that is the closest you can come to immortality because you live on in your students, and I value those 24 years. And I noticed something that is more and more lacking in our schools today. I think where there is no discipline, there is no learning, and I think there is not substitute for an inspired and in-

spiring teacher. And for all of the years I taught, the most important person in the whole school system to me was the janitor. He had the school open, and it was warm, and he had some chalk on the chalkboard, and that is all I needed. The rest of administration, they could have been gone to some foreign country for a year's vacation; it would not have mattered to me.

I think we need to get back to a real respect for education. If you are going to respect education, you have got to have discipline in the classroom. Where there is no discipline, I do not think there is any learning, and I have real trouble seeing discipline in many of our classrooms today.

Mr. McCarthy?

Mr. MCCARTHY. I think the key issue we are also missing is the sense of community, the sense of community between education and business. When you think of what happens with workforce investment boards, those that are successful, there is a direct tie to the skills that are being taught in the school to those being sought by employers.

There seems to be the channelization of education and employment rather than at the K-through-12 level because the preparation is towards the next level of education, not necessarily towards the next level of education and other opportunities, whether they be trade and technical schools, careers immediately without any additional formal education.

The community engagement and support, specifically the business community's support and its recognition by junior colleges, K-through-12 institutions, is going to be critical to reestablishing what I think will be the appropriate cause and effect associated with education. Absent that, we will continue along separate paths where, to your point, literally, the connection starts again at the graduate school, and by then, it is maybe too late at times.

Mr. BARTLETT. Don't you think that you get from your children and your society what you appreciate? I think our society is a long way from appreciating academic achievement.

When I was younger, a good academic achiever was known as a "square," and he had trouble dating the pretty girls. Pretty girls now play dumb so that they can get a date, and the bright guys are known as "geeks" and "nerds." Is that the current terminology for bright guys? And they have trouble dating pretty girls.

Don't you think that we have some better success in our schools if we told our society we really appreciate what you are doing, and if we invited academic achievers to the White House about as often as we invite athletic achievers there and appreciate them? I just think that we do not appreciate education in this country. We appreciate the results of education, the entrepreneur, the guy who is developing all of the new things, but he got there because he educated himself very frequently in spite of an education system which continues to turn out people that, in the words of Mr. Lewis, their preparation was atrocious, was the best word he could use.

Mr. Joyce, was your grandfather's last name Bilco, or how did he get the Bilco name for the door?

Mr. JOYCE. His last name was Lyons, and his first company was Builders Iron Company, so he took the B-I from that and the L from the family name.

Mr. BARTLETT. Okay. That is how he got. For those of you who do not know the Bilco door, it is the standard, and if you are going to put an outside-access door to your basement in a house when you are building it,—in another life, I built homes for about a dozen years, too—so you are going to buy a Bilco door even though somebody else manufactured it. It was still a Bilco door because your name was the characteristic name for any door that served that function.

What do we need to do so that the product of our K through 12 comes somewhere near the product of our graduate schools, which is clearly the best in the world?

Mr. JOYCE. I have spent a lot of time in the classroom encouraging students to consider careers in manufacturing. Most are surprised that today's manufacturing environment is clean, it is high tech, it is interesting. People work in clusters and teams. They enjoy all of that. When they walk through our plant, it is not anything like they have imagined. And when we talk to eighth graders, as an example, about this Connecticut State Scholars program and encouraging them to enroll in a more rigorous curriculum so they can get the better job, they have more opportunities after high school, we asked them a simple question right up front: Where do you think, worldwide, the United States stands in terms of math and science achievement? And always the answer is one, two, or three in the world. Well, we are actually 18th and 19th, respectively, in the world, and they are shocked. How can that be?

Mr. BARTLETT. Who is number one in the world?

Mr. JOYCE. Five of the top six are Asian countries. I do not know which is the first, but five of the top six are Asians. One reason is that the culture in Asia regarding education is far different than ours. They mostly attend school six days a week, and it is another question I asked the students: Who is the student athlete here? Okay, Jim. How often do you practice your basketball? Well, every day, sir. Maybe not Sunday, but six days a week. I said, Okay. Well, that is how the students learn in Japan. They go to school six days a week.

So you do not do that. You only go five days; sometimes you go four, and as every week passes, you fall behind a Japanese student, week after week after week. So what happens after four years of high school? Where do you think they are compared to us? They are number one. We are number 18. It stands to reason.

So you need to practice more, and to get there, we need to challenge our students, we need to set our standards higher and our expectations higher, and there is no question in my mind that we can achieve those standards.

Mr. BARTLETT. You mentioned the Orient and their achievement. Several years ago, I was the commencement speaker at our two high schools in Garrett County,—there are only two—Southern High and Northern High, and Southern High had 200 graduates, and there was only one minority, and that was an Indian girl, an Asian-Indian girl, and she was the valedictorian. So in the afternoon, I went up to Northern High, and there was only one minority student there, and that was little Chinese girl, and she was carrying around a little manilla folder. I said to my wife, I wonder can it be true that she is the valedictorian? And sure enough, she was

the valedictorian. Now, there were two minority students, both oriental, out of 335 kids, and they were the two top achievers. I thought, gee, maybe there is a lesson there.

Mr. Volgenau?

Mr. VOLGENAU. My company for years has supported inner-city learning centers where poor kids can come after school lets out and receive both academic and ethical education, and we have found, through that program, that there are several things that make a difference. One is parental involvement. I am thinking of our work particularly with the Darrell Green Youth Life Foundation. Their parents have to be involved. They have a very high success rate with their kids, and their parents must be involved.

The other is role models, and ITAA studies again and again have pointed out that particularly for women and minority members, they need role models in the area of information technology, and that makes a difference. As long as our role models from a society standpoint are rock stars and super athletes—I love athletics. I am still involved at my age in athletics. I have always loved athletics, but the NCAA announcement, they are proud to say, is 95 percent of our athletes are going pro in a profession other than sports, and that type of thing is important.

There is one other point, and that is I have got a Ph.D. in computers and automation and engineering, and one thing that has surprised me again and again and again about information technology is it is never too late. Time and again, I have seen people who have been only high school graduates who have had the courage to get involved and just the perseverance and study information technology, and they have become very, very good at it, and I have seen many people who have graduated in the liberal arts and have adapted themselves to leadership roles in the area of information technology. So it is never too late.

We talk about communications. One of the problems with IT is the lack of information or, correspondingly, the data glut. There are a lot of government programs underway,—somebody mentioned the smokestacks—but a lot of businesses just do not know about them. And so ITAA for years has worked on community partnerships which involve small businesses and community colleges and the local community to try to get the information out about these training programs that already are being funded. There may not be enough nationwide, but there are plenty of them, and there is plenty of infrastructure for training in the area of IT.

One final point. We think of information technology as being a bunch of PCs on desktops. That is just a very small part of it. For each one of those types of computers that is made, there is a hundred other computers that are embedded within other machines to make them operate better.

So when we talk about mechanics and fixing cars, for example, those folks, too, have to have some knowledge of what happens when a computer fails, when the software fails. Thank you.

Mr. BARTLETT. You mentioned the involvement of parents. Several years ago, I had the opportunity to visit with Steve Forbes a small, black school in Baltimore. They would not admit a child to the school until the family made a commitment to the child's education. I was the commencement speaker at a graduation. It was



not a graduation; it was a celebration. The diploma was given to the family, and then the family, the caregiver, the family then gave the diploma to the graduate, recognizing the contribution that the family made.

Another interesting thing about those graduates: Every one went on to college because the principal said that they were not ready to graduate until they had been accepted in at least three colleges and had a scholarship to at least one college, and they were not ready to graduate until they had reached that.

So the involvement of the family is really, really very important, and you see that.

Our district has the highest number of young people admitted to our military academies, and in almost every case, and these are really the best of the best because we have more than 10 times as many apply as who are accepted in these academies, and one year we had 33, so we have a great district, but almost invariably they come from a family that gives great family support, and so your emphasizing that and education is one of the keys, I think.

Mr. VOLGENAU. I have just one comment. Please send them to the Naval Academy.

Mr. BARTLETT. We sent 17 that year to the Naval Academy.

Mr. VOLGENAU. Thank you.

Mr. BARTLETT. It is in our district. It is in Maryland. I represent a district just 50 miles north of here, and, of course, our school is a Maryland school. That year, 17 out of 33, just a bit over half of the kids, went. You nominate 10 for each slot. Ordinarily, you have one slot. That year we had two slots in the Naval Academy. We nominated 20, and they accepted 17 that year, really quite a phenomenal record.

My colleague from New Jersey, Rodney Frelinghuysen, did an op-ed piece saying that his district had the most young people admitted to our military academies. He had fewer than we, so I, with some confidence, can say that we probably have the most. But the involvement of the family, I noticed, just visiting those young people and their families and going to the awards. It is great to go to the awards where other kids are getting a \$500 and a \$1,000 scholarship, and I announce that they have been living with a star who is qualified for a \$250,000 scholarship. They always get the most applause—it is kind of fun—at that ceremony.

Mr. Coffey?

Mr. COFFEY. Well, I would just go to your point about what made the four-year college and graduate curriculum work in the United States, and I think there are two significant federal policies that did that, the first being the Land Grant College Act during the Civil War, which basically formed a bridge between the agricultural industry in the United States and the educational system to create a system that built support for the small farm community in the United States and encouraged states to have major educational institutions, and I think that was the first major, significant, federal contribution to graduate education.

The second major federal contribution, I think, was the GI Bill of Rights after World War II in which you basically opened higher education to a much broader potential audience than it ever would have had before. And I think, with those two acts, there was sig-

nificant change in the educational system that encouraged the growth of a really first-class, excellent educational system at that level.

We have heaped great praise on both of those acts for hundreds of years now, and they are held up, I think, as examples of where federal intervention did, in fact, change America rather dramatically. I do not feel we have had anything like that in elementary and secondary education.

Mr. BARTLETT. Some of the best courses I took at the University of Maryland were in the department of agriculture. It is a land-grant college, and my best endocrinology course was reproduction in poultry, so I am appreciative of the contribution of land-grant colleges.

Before we get comments from our last two panel members, Ms. Velazquez has a couple of questions she would like to ask.

Ms. VELAZQUEZ. No.

Mr. BARTLETT. Okay. After you. Okay. Mr. Peers?

Mr. PEERS. Yes. I want to hone in on the ability to connect young adults to what they are actually going to experience in the workplace. Each of my colleagues here has talked about that. So I would say is how do we increase opportunities for experiential learning, and how do we start that early enough so that students, young adults, get exposed to different careers and opportunities? Encourage co-op programs and so forth. Encourage opportunities to work part time and go to school part time even in high school. I was fortunate enough to start working at a very early age, and it exposed me to a lot of different opportunities.

Another thing I would do—we try and get more and more businesses, at least in our broker role at the chamber, to come into the schools and to be part of what is happening. You know, you mentioned, Mr. Chairman, about teaching, and with all due respect, I submit you might have done this backwards, that someone of your experience and knowledge, after you have done all of these things that you have done, including served in Congress, would have a lot to offer now as a teacher.

Mr. BARTLETT. Well, I am only 78. I may go back.

Mr. PEERS. There you go. And I really believe that a lot of people go into education, and that is their only field. So teachers and guidance counselors are not exposed to what most students are going to face in the real world of work.

So how do we bring people who have already experienced the world of work in many different capacities, in many different ways, and how do we bring them into the schools so that they could share this knowledge, share this wisdom, share this expertise in a way that exposes more and more of our young adults to what they are going to face? So I think we could look at that.

And then, just lastly, I think we need to stop thinking it is an either/or, the either/or being you go on to graduate school or you do nothing. There are plenty of occupations that are not going to require advanced degrees. There are plenty of occupations that are going to require a very good, solid, vocational education, and to what degree do we concentrate on core competencies that are going to lend themselves to those types of occupations? If you want to be a mechanic, you do need such things as critical thinking skills, cre-

ative problem-solving skills, and that needs to be part of your curriculum when you are working with these young adults, and you have to encourage them that there are other opportunities other than just going to college.

Mr. BARTLETT. I appreciate you mentioning these job opportunities. We are now having to import those skills because there are far too few people with these skills available in our country, and it is because, again, we do not appreciate that.

I built homes for 12 years. At the end of the day, if I had done it right, it is going to be there a hundred years from now. Most of the laws we pass in Congress, I hope, are not here a hundred years from now. It is really a lot of satisfaction in those trades, and we just are not appreciating them and not incenting our young people to go into them.

Mr. Caslin?

Mr. CASLIN. Thank you. A couple of things on universities. How do they measure quality? I have had a number of conversations with leaders across the country of universities, and they measure it in endowment dollar per student. That is one key measure, and what that means is resources to the student.

M.F.T.E. works with a number of universities who have no bridge to the community, that even though they have billions of dollars in endowment and resources for their faculty and their students, the communities that surround them are in great need, and there is no bridge.

In fact, I would like to quote one of our students who grew up in west Philadelphia, and because of the NFTE program and the University of Pennsylvania Wharton Business School, he, as a junior in high school, learned how to start his own business. He then became turned on to finance. He went to Morehouse College, majored in finance. He was recruited by Morgan Stanley, went to Morgan Stanley in New York, worked there. He was recruited by Goldman Sachs, moved to London, worked for Goldman Sachs, and then at the ripe old age of 26, moved back to Brooklyn in Clinton Hill and basically now employs 20 people in the largest supper club, soul food supper club, in Brooklyn. It is called the Five Spot Soul Food Takeout and Supper Club. And Malik Armstead said, 'Knowledge is key; knowledge is power.'

I think you raised the issue, as did Daniel Webster years ago: Knowledge is the true sun of the universe, for on it life and power dance in every beam.'

We have found, through Gallup polls, 80 percent of students in America want to learn how to be entrepreneurs, want to control their destiny, want to get in the marketplace, and very few have access to it. That is why NFTE started. We started because teachers could hardly get the resources they needed just to do their core, and we went out and raised \$180,000 our first year and now have raised nearly \$70 million from the private sector over 16 years to bring entrepreneurship literacy to young people to turn them on to life.

We are in India because of job riots. Imagine in northern India where the education system is working, where you have 10,000 young adults turning out with the equivalent of 1,500 on their SATs showing up for 300 or 400 jobs and people being killed in the

stampede on a job riot. Two people from that community, Jaipur, came to NFTE. They had retired from the business world here in the States, and they said, We cannot sit by and retire, retirement in New Jersey, and see our homeland and a superior education system have this type of stress and conflict. Why can't we promote more entrepreneurship in northern India?

N.F.T.E. is replicating in Germany, which has a very rigid, very strong math and science achievement because there are over 200,000 20-year-olds who are unemployed and without a certificate.

What we are seeing in many of the accomplished systems with high achievement, there is really no entrepreneurial thinking, there is no marketplace penetration and embrace, and even in the U.K., if you do not test well at the age of 10, you are put onto a track fairly to oblivion. We have seen that in South Africa in Tanzania where, again, education systems have certain criteria and certain filter systems at a very young age which do not give young people the chance to recover or even tap their potential.

So there is a flexibility to the U.S. education system which gives late bloomers a chance, and I think that is positive. There is a rigidity in some of the more formal systems across the world. The British education system, de facto, influences 60 countries through the commonwealth. It is fascinating to see that. That is why we started in London to understand how this education system works and how we can bring entrepreneurship education, and we have seen that there is one department of education and labor that coordinates the whole country, the whole United Kingdom, and so our ability to promote an idea is actually more effective and efficient in that way, whereas in the United States, the ability to promote and develop NFTE over 16 years, we have had to navigate the U.S. federal departments, the state departments of education, and then the local districts' education, superintendents, school-based management with principals. So you have 16,000 school districts that are starting to come to somewhat of the same page, but they are very, very, very decentralized.

So it is an interesting struggle, and I think the biggest aspect goes back to what is the end game, and for NFTE, we see the end game as the number of productive and responsible, self-governing people per capita in a community. The more you can build that up, the more you have a chance for a safe and prosperous and just community. The more those numbers decline, the more you have people imprisoned by the tyranny of the few.

Mr. BARTLETT. You mentioned entrepreneurship and its importance. We are one person out of 22 in the world in America, and we have a fourth of all of the good things in the world. We use a fourth of the world's energy. We represent a fourth of the world's economy, and I think that entrepreneurship has largely been responsible for that.

I think the reason that entrepreneurship has flourished here is because of our enormous respect for the rights of the individual. Implicit in our Constitution and very explicit in the first 10 amendments, which is why our founding fathers in 1791 felt compelled to make explicit what was clearly implicit in the Constitution. And as government gets bigger, and we have more of us, and we need more regulations, that respect for the rights of the individual is at

risk, and I think that to the extent that that is at risk, our society is at risk.

What you need to go along with that entrepreneurship, which we are fantastic at, is an education so that you can do something with that entrepreneurial spirit, and that is what we have been talking about in today's hearing, our failure, not in the graduate schools,—we are doing fantastic there—but at the lower levels to educate.

Ms. VELAZQUEZ, and then I have one final question to ask before we thank you for your testimony.

Ms. VELAZQUEZ. Thank you, Mr. Chairman.

Ms. BUEHLMANN, I want to go back to the Federal Workforce Development programs, and maybe you recall the question that was posed by Mr. Udall to Ms. DeRocco mentioning the study that was conducted by the Office of Advocacy, SBA Advocacy, that shows that small businesses really do not participate in those programs that are available for them. Why do you think that Federal Workforce Development programs have such a hard time getting small businesses to participate?

Ms. BUEHLMANN. I believe we provided to each of you a copy of our "Rising to the Challenge Survey," and the thing that we found most prevalent in terms of answering that question is lack of awareness. So one of the things we are trying to do through our work is really generate awareness through chambers across this country to the resources that are available in communities to help small- and medium-sized businesses with their workforce-development concerns, issues, and requirements. It is the number one issue that they raise consistently, is how do we create a workforce system that works so that we can participate and get the skilled and quality workers that we need?

Ms. VELAZQUEZ. But given the fact that we do have some programs that some of them have been either zeroed out, flat funded, but there are some that still have been funded——.

Ms. BUEHLMANN. We have found, over time, that there is greater awareness. It has gone from 5 percent to 40 percent in terms of the surveys that we have done. We have also found that those who use it, and that is about half of the 40 percent have used it with any regularity, are very satisfied with the services they receive. So I go back to, even the National Association of Manufacturers and Jobs to the Future, a Boston-based firm that we coordinate with in one of our particular efforts—all of them found it is this issue of lack of awareness.

Ms. VELAZQUEZ. Does that mean that the federal government, the Department of Labor and other agencies need to do a better job in terms of outreach?

Ms. BUEHLMANN. From our perspective, that is very important, that there needs to be greater communication about the benefits of using the publicly funded workforce system and other resources in communities, that we need a better understanding and put a different face to those. Randy Peers mentioned, for example, that they view them as a social service. Another thing that came out in this survey is that more and more of them are viewing it as an economic-development concern and issue, and connecting it to economic development is really a way to better engage business.

We also believe that if you put a business face to it, you create a communication mechanism by which you present the business case, which ultimately gets the workers they need but also gets the jobs that individuals need with family-sustaining wages, that it is a win-win for everybody in the community.

So we believe that creating awareness, creating different kinds of outreach, putting the business case to it, which we can do, and talking about it is a way not only to hire individuals but to retain them, to advance them, and allow them to gain greater skills and connection to the workplace is really the way that we need to go.

Ms. VELAZQUEZ. Did you share that survey with the Department of Labor?

Ms. BUEHLMANN. Yes, and, in fact, part of what Ms. DeRocco was talking about funded this particular survey, in fact, 3,700 small-and medium-sized businesses through 70 communities throughout the country.

Ms. VELAZQUEZ. Thank you. Thank you, Mr. Chairman.

Mr. BARTLETT. Thank you. Rather than ask you to respond, I just want to make a couple of comments and ask if you might respond for the record because what I want to spend just a moment or two on is a conundrum that I have been concerned with for quite a while now. We have been losing our manufacturing jobs for a long while now, and we are moving to a service-based economy. We are still doing pretty well as far as quality of life is concerned, but if you push this to an absurdity, clearly, it cannot go on forever. If all we do is take in each other's laundry and cut each other's hair, obviously, that is not a prescription for a viable economy, is it?

I understand that wealth is created in only three kinds of activities in our society, in any society. It is created by farming, it is created by mining, and it is created by manufacturing. We have been talking an awful lot today about IT, information technology, and that involves largely computers and moving little electrons around, and I note that you cannot eat them, you cannot wear them, you cannot ride on them. They will not keep the rain off your head. Clearly, IT is a support technology, and unless that IT is used for agriculture, for mining, or for manufacturing, ultimately it really is not creating wealth, is it?

And I note that our trade deficit last year was \$489 billion. Our debt went up last year in this country \$700 billion. They will tell you the deficit was \$500 billion, but the debt went up \$700 billion, and I think that if the debt went up \$700 billion, there was a \$700 billion deficit. The other 200, by the way, is the monies we take from the trust fund, and we pretend that they are not debt. It is the most significant we owe because we owe it to our kids and our grand kids, and shame on us because that debt is getting bigger and bigger, and we are living quite well today at their expense because when it comes their turn, not only will they have to run government on current revenues; they will have to pay back all of the money that we have borrowed from their generation.

I promised, 12 years ago, when I was running that I would conduct myself so my kids and grand kids would not come and spit on my grave because of what I had done to their country. I am still trying to keep that pledge.

Well, if it is true that wealth only comes from farming and from manufacturing and from mining, how did we get from where we are, with this enormous obsession with moving electrons around, to a society which is really producing wealth? I would like you to comment on it, if you would, for the record because we have imposed on your time more than we really should have.

I want to thank you all very much for a very interesting session, and we stand in adjournment.

[Whereupon, at 5:00 p.m., the Committee was adjourned.]

DONALD A. MANZULLO, ILLINOIS  
CHAIRMAN

NYDIA M. VELÁZQUEZ, New York

**Congress of the United States**  
**House of Representatives**  
107th Congress  
**Committee on Small Business**  
2501 Rayburn House Office Building  
Washington, DC 20515-0515

June 2, 2004

**OPENING STATEMENT**  
**CHAIRMAN DONALD A. MANZULLO**  
**COMMITTEE ON SMALL BUSINESS**

Good morning and welcome to this hearing of the Committee on Small Business. A special welcome to those who have come some distance to participate and to attend this hearing.

This Nation is now in a global economy and businesses both big and small must compete in regional markets within the United States as well as those in distant corners of the globe. The competition for ideas and innovation is as expansive as the markets themselves.

The U.S. economy is still the strongest in the world. Jobs in manufacturing are recovering slowly, but the recovery is broad-based. Just what we want.

Those who come to Washington for assistance in providing training must be committed to providing jobs to those trained and to providing and retaining jobs in the USA.

However, to maintain this country's competitiveness, we as a nation cannot dwell on past successes. Instead, we must accept the challenge of the future. We must build and preserve a foundation for continued success.



To continue this country's competitiveness in world markets requires a workforce constantly trained and available in those skills needed in an increasingly technology-centered and computer-based environment. Equally important to playing a leadership role in the world economy is the education and foresight of those who manage and direct U.S. businesses. In order to foster and sustain both this Nation's worldwide competitiveness and domestic job growth, requires making lifelong career training and education a national priority.

My friend and colleague, Congressman Weller of Illinois, has introduced legislation, H.R. 4392, that will assist employers and employees to get those technical skills necessary to keep this Nation's workforce and industries on the cutting edge of science and technology.

H.R. 4392, the "Technology Retraining and Investment Now Act of 2004," addresses the critical problem of providing a high tech workforce capable of mastering the ever changing advances in the design and manufacture of increasingly sophisticated products, especially those connected with computers and information technology.

I strongly support job training and retraining. It is a key element in this country's maintaining its competitiveness in world markets. Again, thank you for coming to this important hearing.

I now yield for an opening statement by my good friend and colleague, the Ranking Member, Ms. Velazquez of New York.

STATEMENT  
of the  
Honorable Nydia M. Velázquez, Ranking Democratic Member  
House Committee on Small Business  
Hearing on the Importance of Education and Training for Small Business  
June 2, 2004

Thank you, Mr. Chairman.

As our nation experiences a rising tech industry and a recovering manufacturing sector, we also see the increased need for skilled workers. This growing demand for skilled labor is an increasing trend in this country. As our nation struggles to sustain an economic recovery, we cannot afford to have a shortage of qualified, trained workers within some of our most prominent industries.

Sixty percent of all jobs are classified as skilled, while only twenty percent are classified as non-skilled. Our country's failure to meet the demand for these trained workers poses a serious threat to our competitiveness in the global market, and to our ability to sustain an economic recovery.

Much of this has to do with the fact that the manufacturing sector has been hit hardest by the shortage. A recent report stated that more than 80 percent of manufacturers claim to have difficulty finding qualified employees, and that 60 percent of manufacturers typically reject 50 percent of all applicants because of a lack of skills.

At a time when technology is causing manufacturing jobs to become increasingly skilled, a high premium has been put on employee skills. Jobs continue to move overseas, and the Bush administration's policies are doing little, if anything, to help the nation's manufacturing sector.

Sadly, the pool of skilled labor is not ready to meet our nation's demand, especially within the manufacturing sector. Foreign countries are providing the training that unskilled employees need – shifting even more American jobs overseas. Our nation's small businesses and manufacturers do not have the funding to offer these vital training programs.

Today's hearing will examine the 8-week long Republican agenda, "Hire Our Workers" (HOW) initiative. This week's focus is on lifetime learning – and once again, there are no new solutions being offered by the Republican leadership, aside from the personal re-employment accounts (PRAs), which are nothing more than risky schemes. Instead, the Republicans choose to go back to legislation that has already passed, and already failed.

The Bush administration's new job training dynamics are not conducive to meeting the needs of our country's industries. President Bush's proposed commitment to hiring workers does not match up with his actions.

Despite the fact that our nation has lost over 2.8 million jobs in the manufacturing sector since the start of 2001 – the Bush administration makes cuts to vital employment and training programs that benefit this industry. President Bush's request for funding for the Manufacturing Extension Program (MEP) is more than \$66 million less than the program's funding level in 2003.

MEP aids small and medium-sized manufacturers with technical and business solutions, and has made it possible for over 150,000 of our country's small businesses to tap into the expertise of knowledgeable manufacturing and business specialists all over the United States.

Another vital program that has been underfunded by the Bush administration is the Trade Adjustment Assistance (TAA) program. This program offers retraining to displaced workers, but most dislocated manufacturing employees receive no help from TAA.

At a time when training programs are crucial for displaced employees, President Bush cuts funding for the program. This comes at a time when the number of people benefiting from TAA is on the rise and this funding will not meet the increasing demand for the program.

Cutting funding for employment and training initiatives such as these is not the way to help the manufacturing sector sustain an economic recovery while they are already experiencing a shortage of skilled workers. These cuts also hurt our small businesses, which create 75 percent of all new jobs, and face greater workforce development barriers than their corporate counterparts.

If President Bush truly cared about our nation's workforce, then he would start adequately funding employment and training programs that promote skilled employees. The livelihood of our nation's small manufacturers and small businesses depends on it.

Thank you, Mr. Chairman.

**STATEMENT OF EMILY STOVER DEROCCO  
ASSISTANT SECRETARY OF LABOR FOR  
EMPLOYMENT AND TRAINING  
BEFORE THE COMMITTEE ON SMALL BUSINESS  
U.S. HOUSE OF REPRESENTATIVES**

**June 2, 2004**

Mr. Chairman and Members of the Committee:

I am pleased to have this opportunity to appear before you today to discuss workforce issues related to the manufacturing sector of our economy, including how we train and retrain our workers so that they are competitive in the world economy.

The U.S. Manufacturing Industry

Earlier this year, Secretary of Commerce Donald Evans submitted to the Congress a report titled "Manufacturing in America" that outlined a comprehensive strategy to address the challenges facing U.S. manufacturers, and soon the Department of Labor will be submitting its own report highlighting "Trends in Manufacturing Employment." Several themes emerge from these reports.

The first theme concerns the importance of the manufacturing sector. The United States is the world's leading producer of manufactured goods, and standing alone, the U.S. manufacturing sector would represent the world's fifth-largest economy. Manufacturing remains a powerful engine of economic growth and is vital to the technology boom. The manufacturing sector leads the nation in productivity growth, which is key to increasing our standard of living. Moreover, the manufacturing base is as important to this country's economy today as it has ever been. Despite the rise and fall of industries and the effects of globalization, American manufacturing's real Gross Domestic Product has increased by 45% over the last 15 years. In addition, our

manufacturing base generates enormous economic activity in other industry sectors. American manufacturers are leaders in research and development investment, e-business applications, and technology integration.

A second theme concerns the transformation of the manufacturing sector caused by long-term structural forces, such as the shift from low-tech manufacturing to advanced manufacturing, the greater integration of technology in production, and the globalization of production.

While nearly all industrialized countries, including the U.S., have experienced declines in manufacturing employment over the past decade, manufacturing output has increased in most of the past 15 years, indicating that manufacturing productivity has increased. The manufacturing sector was among the hardest hit in the recent recession, but it is now showing signs of recovery. Manufacturing payrolls grew by 21,000 in April and 9,000 and 7,000 in March and February, respectively, following 42 consecutive months of employment declines that stretched back to the previous Administration. With its remarkably strong productivity growth, the manufacturing sector has demonstrated resiliency and adaptability despite economic change. Many firms are creatively inventing business solutions that allow them to capture the benefits of productivity gains and technological advancements, thus enhancing their competitiveness.

To help ensure solid and sustainable expansion in coming years, we must recognize that some current and prospective workers in the manufacturing sector have insufficient skills for the higher-skill job openings that do exist and will become more numerous in the future. In my role as co-chair of the Department of Commerce's Manufacturing Roundtable on workforce issues, I have heard directly from industry

executives about skill shortages. One of the most protracted problems that employers face is the lack of skilled workers to operate their high-tech manufacturing plants. Even during the recent recession, 80 percent of manufacturers said that they had a moderate to serious shortage of high-quality production applicants, not just of engineers. The more pervasive problem is now the need for production workers, machinists and craft workers skilled enough to work in the manufacturing jobs of the 21<sup>st</sup> century.

The demographics of the workforce are likely to exacerbate the shortage of skilled workers in the coming years. We all know our population is aging. According to Census Bureau population projections, by the year 2030, 20 percent of the population, or 70 million Americans, will be 65 or older, compared to 12 percent today. Demographers point out that with the retirement of the baby-boom generation, the demand for labor will be higher relative to the working age population. Rising productivity, technological advances, and tapping into alternative labor pools such as older workers, people with disabilities and immigrants, are all elements that will respond to the worker shortage, but are unlikely to be enough. American manufacturers could have a difficult time finding workers to run tomorrow's factories and offices.

The Department of Commerce's report on manufacturing in America specifically stated, "To remain globally competitive, education and worker training strategies must be at the top of the national priority list." Skills and education are now a dominant, if not decisive, factor in our ability to compete in the global economy. We must have the best skilled workforce possible to maintain America's "competitive advantage" in the global economy and for our continued economic growth. This is where the Department of Labor has an important role to play.

The Role of the Workforce Investment System

Today's U.S. manufacturing companies exist in an intense environment of global competition. Even the biggest of companies have moved to what's called "lean manufacturing" where they aggressively seek to trim costs. This often includes the use of screening and placement firms for recruitment and human resource functions. While larger manufacturing companies can afford this alternative, smaller companies operating on tight budgets must look for other solutions. The workforce investment system offers these companies a service they could not previously afford. And with 99 percent of manufacturing establishments employing fewer than 500 workers (2003 BLS data), there is substantial opportunity for the workforce investment system to make a significant difference for one of our nation's most important industries.

Currently, the Federal government invests \$23 billion annually in job training and employment assistance programs. The Department of Labor administers many of these programs, through the workforce investment system, with a goal of preparing workers for jobs of the 21<sup>st</sup> century. Through these programs, the Department of Labor is building a demand-driven system to provide America's economic engine – businesses – with the highest quality workers possible, and to link the two together for their mutual benefit. This relationship allows businesses to be more competitive in the global economy and workers to live more productive and prosperous lives. Key to the success of a demand-driven system is the public workforce investment system's ability to respond to the needs of the labor market by partnering and working collaboratively with businesses, educators and trainers, and communities in a strategic effort to prepare workers to take advantage of new job opportunities in high growth sectors of the economy.

Working together is critical, because the skill shortage challenge we face in the 21<sup>st</sup> century is formidable. In a dynamic, market-driven economy, our task is not to cultivate a workforce trained for jobs listed in last week's want ads -- but rather to ensure that people are moving through a training pipeline to be prepared for the new jobs that are being created, in many cases by brand new companies in brand new industries. We must cultivate skill-sets that connect to real-world needs and real-world opportunities. By targeting these high growth sectors of the economy we can ensure no worker is left behind as we maintain America's competitive advantage in the global economy.

As we strive to be competitive in the global economy, some industries and workers will be impacted by business decisions and competitive pressures, and inevitably, some workers will need to retool and retrain for skills required in emerging sectors of our economy. The Department provides a vast array of services to assist workers who are transitioning between jobs. The Workforce Investment Act of 1998 (WIA) provides services to all dislocated workers regardless of their reason for dislocation -- plant closures, downsizing, foreign competition, shifts in production -- or their occupation or industry. WIA dislocated worker services are available through a network of almost 2,000 comprehensive One-Stop Career Centers and another 1,600 plus affiliate centers nationwide. Through this nationwide system, workers have the advantage of access to a broad range of employment and training services, including those available in One-Stop Career Centers that are provided by partner programs.

Dislocated workers who need income support often qualify for Unemployment Insurance (UI) and can access it through the One-Stop Career Centers. WIA also authorizes needs-related payments for workers who do not qualify for UI. In addition to



funds for serving dislocated workers that are allocated to States by a formula specified by law, National Emergency Grants are available for unemployment caused by large-scale layoffs, plant closings and natural disasters.

In addition to WIA, Trade Adjustment Assistance (TAA) is a program designed for a particular category of dislocated workers: those who have lost their jobs or suffered a reduction of hours and wages as a result of increased imports or shifts in production of goods to outside the United States. TAA provides both benefits and services to certified workers, including job search allowances, relocation allowances, income support in the form of Trade Readjustment Allowances for workers enrolled in training, a Health Coverage Tax Credit, approved training, and wage subsidies for workers over the age of 50.

#### The President's High Growth Job Training Initiative

The President has asked DOL to target those industries generating the most new jobs or where the greatest skill shortages exist, and focus our training and education programs on providing the talent-base to fill those jobs. That is the idea behind the President's High Growth Job Training Initiative. Its premise is simple and straightforward: Successful workforce development happens when the system is demand-driven -- when training programs are connected to real employment opportunities.

The High Growth Job Training Initiative encourages the workforce investment system to identify businesses and industries with career opportunities, evaluate their skill needs, and ensure that people are being trained with the skills these businesses require.

The fact that America's workforce is among the best educated in the world is a key competitive advantage for us in the global economy, and we need to capitalize on

that advantage. Most of the new jobs created today require at least some post-secondary training, whether it is vocational, apprenticeship, college, or on-the-job training. People who have post-secondary training typically experience less unemployment and higher wages than those who do not.

American manufacturing is an industry in transformation as advanced technologies become pervasive throughout the manufacturing process. We recognize this transformation as critically important for our economy as a whole. A successful transformation requires a highly-skilled workforce. We have worked with advanced manufacturing employers to understand their business processes. This, in turn, helps us to understand their skill requirements so that our workforce investment partners can train to those requirements.

We know that there are sectors of the manufacturing industry that project employment gains and these sectors lead the nation in productivity growth. According to BLS, employment in pharmaceutical and medicine manufacturing is expected to increase by 68,000 jobs between 2002 and 2012; plastics and rubber products manufacturing by 138,000 jobs; machinery manufacturing by 120,000 jobs; and fabricated metal product manufacturing by 97,000 jobs. Some of these industries are currently suffering a skilled labor shortage. As productivity grows, advanced manufacturers will require more highly-skilled workers to operate sophisticated equipment.

We are continuing to gather information about the workforce issues of the advanced manufacturing industry by conducting forums with different sectors of the advanced manufacturing industry. Over the last several months, we have met with CEOs and senior executives from over 100 companies and associations to discuss their

workforce issues and to share successful strategies. These forums provide us and the public workforce system with the opportunity to gain further understanding of the critical workforce needs of the industry. After meeting with industry leaders, we will develop strategic alliances with business, education, and workforce leaders who are proactively focused on the workforce issues confronting the advanced manufacturing industry to engage them in developing innovative approaches to addressing their needs. We will be partnering with employers and education providers to develop and model skills training solutions nationally that can be replicated and sustained throughout the public workforce system.

The research conducted on the advanced manufacturing industry provides a preliminary snapshot of what industry executives identify as their key workforce development concerns:

- First, the capacity for innovation is the primary competitive advantage for U.S. manufacturers in the global marketplace. Thus, employers need workers who are continually focused on improving processes and products.
- Second, too few young people consider manufacturing careers or are aware of the skills they need to work in an advanced manufacturing environment. Similarly, the K-12 system does not adequately impart the skills that employers need or educate students of manufacturing career opportunities.
- Third, manufacturing confronts a negative public image. Consequently, too few highly skilled workers seriously consider manufacturing careers.
- Fourth, the manufacturing workforce is increasingly foreign-born, meaning that English language skills are becoming a prominent challenge for the industry.

Employers have experienced difficulty finding English as a Second Language programs that suit their particular needs.

- Fifth, manufacturers experience difficulty finding and hiring workers with adequate basic skills, including: reading, writing, math, problem solving, communication, teamwork, critical thinking, computer literacy, and flexibility/adaptability.
- Sixth, many small- and medium-sized manufacturers have little experience organizing training programs for their workers.
- Seventh, manufacturers report difficulty finding training providers that align with their needs, for example, coordination of work and training schedules, transportation of workers, finding programs that meet specific technology or process needs; and
- Eighth, manufacturers assert that rising health care and other costs limit the resources available for incumbent worker training. Additionally, businesses face the dilemma that the trained worker may leave but the untrained worker will stay.

#### Proposals for System Reform

As we increase our understanding of the manufacturing industry's workforce challenges, we also must improve the responsiveness of our publicly-funded workforce investment system. Through reauthorization of the Workforce Investment Act of 1998, we have proposed to increase the flexibility and effectiveness of our training programs. To enhance the provision of comprehensive services to adults, we propose to combine funds that now finance similar services for similar populations in separate funding

streams. Performance accountability would be simplified and strengthened by establishing common measures for all Federal job training programs and reducing the number of current performance measures for WIA programs.

In the Fiscal Year 2005 Budget, the President has proposed a \$250 million initiative to strengthen the role of community and technical colleges in training workers for high-growth jobs. Community-Based Job Training Grants represent a new, employer-focused competitive grant program for training in community and technical colleges. The grant competitions will build on the High Growth Job Training Initiative and will result in training for 100,000 workers throughout the nation.

The Department of Commerce's Manufacturing Report also recommended the establishment of Personal Reemployment Accounts to assist workers who need the most help getting back to work. This innovative approach to worker adjustment would offer accounts of up to \$3,000 each to eligible individuals to purchase job training and key services, such as child care and transportation, to help them look for a job and get back to work quickly. As a further incentive, recipients would be able to keep the balance of the account as a cash reemployment bonus if they became reemployed within 13 weeks. We urge the Congress to provide us with the funding to pilot test this innovative approach, for which \$50 million is included in the President's FY 2005 Budget.

In April, President Bush announced his proposal to reform Federal job training programs to provide America's workers with better training for better jobs. These reforms will ensure that workers have the skills that they need to compete for jobs in high-growth industries in the 21<sup>st</sup> Century. The reforms will double the number of workers receiving training through the major WIA grant programs, and will ensure that

these programs work better for the nation's workers to close the skills gap so we fill high-growth jobs with well-trained American workers. The proposal would consolidate the funding streams for four employment and training programs, eliminate unnecessary overhead costs, simplify administration, and provide Governors with additional flexibility in addressing the needs of dislocated workers.

Taken together, these current programs and proposed initiatives will provide important tools to help address the structural changes the manufacturing industry is facing and in so doing, they will help provide the skilled workforce needed in the manufacturing industry of the 21<sup>st</sup> century.

Mr. Chairman, this concludes my prepared statement. At this time I would be pleased to answer any questions that you or other Committee Members may have.

**The**  
**Veterans Corporation**  
Capital • Training • eCommerce • Services

Edward G. Lewis  
*Chairman of the Board*

---

STATEMENT OF  
  
THE HONORABLE EDWARD G. LEWIS  
CHAIRMAN OF THE BOARD  
  
NATIONAL VETERANS BUSINESS DEVELOPMENT CORPORATION  
-- "THE VETERANS CORPORATION" --  
  
BEFORE THE  
  
COMMITTEE ON SMALL BUSINESS  
HOUSE OF REPRESENTATIVES  
CONGRESS OF THE UNITED STATES  
  
JUNE 2, 2004

---

**THE NATIONAL VETERANS BUSINESS DEVELOPMENT CORPORATION**  
1800 Diagonal Road • Suite 230 • Alexandria, Virginia 22314  
(703) 299-4390 voice • (703) 299-4394 fax  
[www.veteranscorp.org](http://www.veteranscorp.org)

Edward G. Lewis  
Congressional Testimony  
House Committee on Small Business  
June 2, 2004

Good Afternoon, Mr. Chairman and Distinguished Members of the Committee. Thank you very much for your invitation to testify today. This is my first appearance before your Committee, and I am deeply honored to have this opportunity, particularly since your Committee is one of the Congressional authorization committees for the National Veterans Business Development Corporation (The Veterans Corporation).

My name is Edward G. Lewis, and I am currently the Chairman of the Board of Directors for The Veterans Corporation. I look forward to discussing with you today these very important issues of current and future education, job training and retraining needs in order to foster and sustain domestic job creation and growth and this Nation's economic competitiveness in the dynamic global economy and world market.

As Chairman of the Board of The Veterans Corporation, as a private citizen and entrepreneur, and as a long-time educator, I commend the leadership role that this Committee is providing and strongly support your efforts to bring focus on these critical education and training issues. Education and training must again become a national priority at all levels in both the public and private sectors, including government, business, industry, and academia, if this Nation is to successfully address the continuing economic, scientific and technological challenges of the 21<sup>st</sup> Century.

Today, my comments on education and training are primarily focused on one group of individuals in this country, our Veterans, including Service-Disabled Veterans, but more specifically on those Veterans who are involved in entrepreneurial endeavors and small business enterprises. Several important factors should be considered.

First, demographically from the 2000 Census, there were approximately 26.4 million Veterans, including 1.9 million Service-Disabled Veterans (VA statistics). Approximately 16.6 million Veterans were below the age of 65. Based on DoD and DoL Transition Assistance Program information, approximately 200,000 service members leave active duty each year, becoming Veterans. The Veterans Corporation further extends the definition of "Veteran" to include those individuals serving in the Reserves and National Guard, currently numbering approximately 874,000. Finally, from the Economic Census conducted in 1996, there were, at that time, an estimated 4 million Veteran-owned businesses and approximately 220,000 Service-Disabled, Veteran business owners.

Second, entrepreneurship is alive and well in this country. The self-employed, home-based businesses and small business enterprises are the backbone of this Nation's economic infrastructure, vitality and strength. Many people in this country own small businesses and make a strong contribution to domestic job growth; the main point is that small business creation is the main engine for job creation in this country. The majority of people in this country work in small business environments and contribute significantly to the overall productivity of this Nation and its competitive posture in the global marketplace.



Veterans who are small business owners or who work in small business environments are a critical part of this Nation's economic infrastructure, and they have made a significant contribution to the economic success of this country. They will continue to do so – why, because Veterans are resourceful and reliable, they have commitment and resolve, all traits they honed while serving this country and now successfully apply in their small business activities.

Third, to be successful in entrepreneurial activities, in both the startup and growth phases of small business, requires in-depth knowledge. Many entrepreneurial ventures have failed in the past during the first few days, weeks and months because the entrepreneurs had a great entrepreneurial idea but no requisite knowledge on how to start a business. Many entrepreneurial ventures, although successful in the initial startup phase, tend to plateau or fail in the 3-5 year timeframe because the entrepreneurs do not know how to grow a successful startup. The level of in-depth knowledge needed to be successful in both the startup and growth phases of small businesses must be gained through effective entrepreneurial education, mentoring and counseling, not on a one-time basis, but on a learning continuum throughout the life of the entrepreneurial activity. To be successful entrepreneurs, Veterans must avail themselves of entrepreneurial education, mentoring and counseling activities.

Finally, there is no question that technological innovation has changed businesses throughout the world, and therefore, there is no question that, to remain competitive in the world's markets and to meet future economic, scientific and technological challenges, we must stay on the cutting edge of technology whether we are a small entrepreneurial business or a large corporation. However, based on my many years of experience in management, information technology and education, we must ensure that our future focus on information technology is not just for technology's sake alone, not just for the glitz and glamour of "neat" functioning technologies.

As we evolve our views on the effective role of education and training to help sustain this Nation's economic competitiveness in the global marketplace and to help support job creation and growth, information technology will be a critical component. But all too often in the past, many businesses have found themselves in the predicament of having only focused on the information technology as an end, resulting in the underutilization and/or misuse of the technology, in wasting valuable resources, and in not leveraging the strategic value for which the technology should have been applied.

Our primary focus on future information technologies, and the use of these technologies in organizations, should be as a means, not as an end unto itself, in order to achieve business goals and objectives. We need to better understand the purpose and use of information technologies. We need to better understand why we use information technologies in support of business requirements, and how this use can be improved. In my view, the purpose in using information technologies effectively is to allow individuals in their work environments, both large and small businesses, and in their private lives to effectively access, manipulate, store, transfer and use information to support their business and personal activities through effective communication, analysis and decision making.

Although many people have argued over the past few years that our society is in the Information Age or Revolution, I respectfully disagree. We are still very clearly in the Information Technology Age, an Age that began in the 1950s. Information technologies are still a dominant focus in our society, in our private lives and in our businesses. Until we, as a society, truly understand the context, content and relationships of and between data, information and knowledge and then apply these concepts effectively in our personal and business environments, only then will we or can we effectively evolve an Information Age society in this country.

We need to informate our organizations, not automate them. To effectively evolve an Information Age society, we need to emphasize this concept of informing for all organizations, including small entrepreneurial businesses, large corporations and governments. This is the key for success in meeting our Nation's future economic, scientific and technological challenges. It is the key for success in creating future abundant and challenging job opportunities within this country. It is the key to success in increasing our competitive posture as a Nation in the global marketplace. As our society evolves, as societies around the globe evolve, our organizations must be able to establish and sustain core and distinctive competencies in order to compete effectively in the global arena. Informating can help our organizations achieve this dynamic global competitive posture.

To effectively evolve an Information Age society, to effectively implement and use the informing concepts in our personal and business environments, we must focus on developing and implementing more effective education and training on this concept. This level of education and training, and ultimately the focus and use of informing, must be pervasive across this country and throughout our society.

This education and training must begin at an early age and become a significant part of lifelong learning for all individuals as well as for and within all organizations, it must become all encompassing to be effective. Entrepreneurial education and training should also focus on the role and use of the informing concepts to allow entrepreneurs and small business activities to be on the leading edge of business innovation and to continue as a significant part of the economic strength, growth and backbone of this country. To be successful entrepreneurs, Veterans avail themselves of entrepreneurial education to better understand and apply these informing concepts in their entrepreneurial endeavors and small business enterprises.

**PUBLIC LAW 106-50 (VETERANS ENTREPRENEURSHIP AND SMALL BUSINESS DEVELOPMENT ACT OF 1999)**

Championed by this Committee, Public Law 106-50 was passed in August 1999. Under the general provisions of Public Law 106-50, Congress found the following:

- (1) Veterans of the United States Armed Forces have been and continue to be vital to the small business enterprises of the United States.

(2) In serving the United States, Veterans often faced great risks to preserve the American dream of freedom and prosperity.

(3) The United States has done too little to assist Veterans, particularly Service-Disabled Veterans, in playing a greater role in the economy of the United States by forming and expanding small business enterprises.

(4) Medical advances and new medical technologies have made it possible for Service-Disabled Veterans to play a much more active role in the formation and expansion of small business enterprises in the United States.

(5) The United States must provide additional assistance and support to Veterans to better equip them to form and expand small business enterprises, thereby enabling them to realize the American dream that they fought to protect.

Congressional intent is clear, entrepreneurial Veteran-owned small business enterprises are critical to this Nation and to our national economic viability. We must and should as a Nation support Veterans in their entrepreneurial endeavors, to provide them the necessary resources and capabilities to help them build and grow their small business enterprises.

The National Veterans Business Development Corporation (The Veterans Corporation), a Federally-chartered Corporation, was established by Public Law 106-50 with the following purposes:

(1) to expand the provision of and improve access to technical assistance regarding entrepreneurship for the Nation's Veterans; and

(2) to assist Veterans, including Service-Disabled Veterans, with the formation and expansion of small business concerns by working with and organizing public and private resources, including those of the Small Business Administration, the Department of Veterans Affairs, the Department of Labor, the Department of Commerce, the Department of Defense, the Service Corps of Retired Executives, the Small Business Development Centers, and the business development staffs of each department and agency of the United States.

By establishing the National Veterans Business Development Corporation, a vehicle was created to bring national attention to, focus on, and support for Veterans in their entrepreneurial endeavors and small business enterprises. To be successful in supporting Veteran entrepreneurship, The Veterans Corporation must facilitate and coordinate public and private resources in a dynamic collaborative effort across this country in order to provide Veterans with the necessary resources and capabilities to build and grow their small business enterprises. These resources must include effective entrepreneurial education, both formal and informal, mentoring and counseling in order to provide the proper knowledge and tools necessary for Veterans to succeed in their entrepreneurial efforts and thus continue

to make a significant contribution to this Nation's economic growth and competitiveness in the global marketplace.

#### THE VETERANS CORPORATION FY 2004-2008 STRATEGIC PLAN

In the FY 2004-2008 Strategic Plan for The Veterans Corporation, we have articulated the following Vision Statement:

**"The Veterans Corporation (TVC)** will be the premier organization in the world assisting America's Veterans, including Service-Disabled Veterans, in creating and expanding their entrepreneurial endeavors and Veteran-owned small business enterprises by providing access to knowledge, tools and resources necessary for success."

Also included within the FY 2004-2008 Strategic Plan for The Veterans Corporation are these Corporate Goals:

**C.** Establish key **strategic business partnerships** with private sector organizations to support and enhance TVC programs.

**D.** Establish effective **strategic working relationships** with all components of Federal, State, and local governments which have responsibilities to assist Veterans in the formation and expansion of small business concerns.

**E.** Establish **effective alliances** with all Veteran Service Organizations to gain their support and commitment for TVC's programs, and to obtain their assistance in the successful implementation of these programs.

**F.** Develop and implement TVC programs which provide Veterans **access to knowledge, tools and resources** necessary to succeed in their entrepreneurial efforts and Veteran-owned small businesses.

**G.** Establish strategic venues for effective **business networking and knowledge sharing** opportunities for Veterans and Veteran-owned small businesses.

**H.** Establish and maintain a network of **information and assistance centers** for use by Veterans and the public, emphasizing and leveraging information technologies and the Internet."

We, in The Veterans Corporation, fully understand and accept the challenges as outlined in Public Law 106-50 to develop and provide the necessary and successful programs and services to fully support Veteran entrepreneurship, to help Veterans build, sustain and grow their small business enterprises. In response to these challenges, we have established the strategic vision, focus and direction in order to

Edward G. Lewis  
Congressional Testimony  
House Committee on Small Business  
June 2, 2004

build the necessary dynamic collaborative partnerships and relationships in both the private and public sectors to effectively serve entrepreneurial Veterans, to help them succeed in their entrepreneurial efforts and small business activities. A key component of this strategic vision, and the resulting collaborative partnerships and relationships, is to develop and deliver high-quality, cost-effective, and efficient entrepreneurial education, mentoring and counseling programs – critical success factors for successful Veteran entrepreneurial activities.

#### **ENTREPRENEURIAL EDUCATIONAL EFFORTS TO SUPPORT VETERANS**

In order to support Veterans in their entrepreneurial endeavors and small business enterprises with knowledge, tools and resources necessary to succeed, The Veterans Corporation embarked on the development of the Veteran Entrepreneurial Training (VET) Program in FY 2002, using the Ewing Marion Kauffman Foundation's FastTrac™ programs (New Venture and Planning) as the initial foundation for our VET Program.

Since the inception of the VET Program with three pilot programs in early FY 2003, we have conducted 69 Veteran Entrepreneurial Training courses, with 52 additional courses already planned for the remainder of FY 2004 and into FY 2005. To date, 870 Veterans have or are currently participating in our VET Program courses; 683 Veterans have graduated from the VET Program courses. Total VET Program results to date, as well as the six States with the most successful VET Program results to date, as of May 20, 2004, are provided in Tables 1 and 2.

Edward G. Lewis  
 Congressional Testimony  
 House Committee on Small Business  
 June 2, 2004

**TABLE 1**

TOTAL VET PROGRAM RESULTS (FY 2003-2005)		20-May-04	
	COURSES	GRADUATES	ENROLLEES
<b>TOTAL</b>	New Venture	377	67
	Planning	270	58
	Combined Course	25	
	Tech	11	
	<b>TOTAL</b>	<b>683</b>	<b>125</b>
<b>FY 2003</b>	New Venture	210	
	Planning	223	
	Combined	25	
<b>FY 2004</b>	New Venture	167	67
	Planning	47	58
	Tech	11	
<b>FY 2005</b>	New Venture		
	Planning		
	<b>TOTAL</b>	<b>683</b>	<b>125</b>

**TABLE 2**

TOTAL VET PROGRAM RESULTS BY STATE (FY 2003-2005)		20-May-04	
STATE	COURSES	GRADUATES	ENROLLEES
Florida	New Venture	199	11
	Planning	63	
Pennsylvania	New Venture	54	12
	Planning	33	28
	Tech	11	
Maine	New Venture		
	Planning	76	
California	New Venture	21	
	Planning	25	14
DC Metro/Virginia	New Venture		
	Planning	38	
Texas	New Venture	22	19
	Planning		

#### **VETERAN ENTREPRENEURIAL TRAINING (VET) PROGRAM COURSES**

Our primary VET Program consists of two FastTrac™ products licensed by the Kauffman Foundation: New Venture and Planning.

The New Venture Program focuses on the potential business owner, taking them through the process of assessing the feasibility of their business venture – how to start a business. The Planning Program curriculum is better suited for those individuals already in business and wanting to enhance their business – how to grow their business or start a second unrelated business. Specific curriculum modules for these two courses include:

##### **FastTrac™ New Venture:**

Introduction: The Power of Planning  
 Module 1: Introduction to the Program and the Entrepreneurial Profiles  
 Module 2: Identifying and Assessing Venture Opportunities  
 Module 3: Concept Development  
 Module 4: Entry Strategies  
 Module 5: Market Research and Analysis  
 Module 6: Pricing and Profitability  
 Module 7: Market Penetration  
 Module 8: Budgeting  
 Module 9: Next Steps

##### **FastTrac™ Planning:**

Module 1: Introduction to the Program and the Entrepreneurial Mindset  
 Module 2: The Management Team  
 Module 3: Legal Aspects  
 Module 4: Marketing – Purpose & Research  
 Module 5: Marketing – Analysis  
 Module 6: Marketing – Penetration Tactics  
 Module 7: Financials – The Foundation  
 Module 8: Financials – Management Tools  
 Module 9: Financials – Budgeting  
 Module 10: Operations and Managing Growth  
 Module 11: Money Sources

The Veterans Corporation is also reviewing three additional FastTrac™ programs for inclusion in the VET Program, including Listening to Your Business, Manufacturing and Hi-Tech. Specific curriculum modules include:

**FastTrac™ Listening to Your Business:**

Introduction to Listening to Your Business Workshop  
 Step 1: Three-Year Vision  
 Step 2: Business Life Cycle and Transitions  
 Step 3: Planning Tools and Competencies  
 Step 4: Taking Action – Transition Tactics

**FastTrac™ Manufacturing:**

Same Modules as FastTrac™ Planning except emphasis is on the Manufacturing environment.

**FastTrac™ Hi-Tech (two phases):**

Feasibility Planning

Module 1: The Technology Entrepreneur  
 Module 2: Feasibility Introductions  
 Module 3: Market Research  
 Module 4: Model Business Feasibility Checklist  
 Module 5: Technology Feasibility Checklist  
 Module 6: Next Steps

Business Planning

Module 1: Business Plan Basics and Writing  
 Module 2: Management and Organization Plan  
 Module 3: Product and Service Plan  
 Module 4: Marketing Plan  
 Module 5: Operating and Control Systems Plan  
 Module 6: Financial Plan  
 Module 7: Growth Plan  
 Module 8: Finalizing the Business Plan  
 Module 9: Future Steps

**VETERAN ENTREPRENEURIAL TRAINING (VET) PROGRAM DEVELOPMENT**

Kauffman certified facilitators, who are, or have been entrepreneurs, facilitate all of these programs. Kauffman screens and trains every course facilitator and administrator. The Veterans Corporation's Director of Education attends every Kauffman facilitator/ administrator training course to assess the quality of the training course, meet the facilitators and administrators who are being trained and to observe their presentation skills. In addition, when possible, actual classes conducted by the trained facilitators are observed at their site location.



Each VET Program course is conducted in an interactive fully participative manner with the support of guest speakers. Additionally, the curriculum is designed to provide the participants with information and practical exercises related to business technical assistance, access to capital and the usefulness of an electronic marketplace. The interactive nature of these programs, coupled with the expertise of guest speakers, creates a productive forum for the Veterans to finish a business or feasibility plan that includes financial, marketing and operational components.

Our preference is for "Veteran only" courses facilitated by successful Veteran entrepreneurs and with speakers who are Veterans themselves. We have found that the camaraderie that already exists within the Veteran community grows stronger in the classroom because of their similar interests and backgrounds, and also it creates the support network vital to a successful program and long-term relationships.

We currently establish new course locations based on the following three factors:

- 1) Veteran demographics -- where are most Veterans living;
- 2) adequate resources, including certified facilitators, classrooms, mentors, guest speakers, that available to conduct a successful program; and
- 3) the presence of a local Veteran champion who can build public/private coalitions of supportive, influential individuals and organizations in the local area willing to provide their time, resources, mentorship, and financial support to the VET Program.

We are presently exploring ways of using distance-learning technology to further our reach to Veterans located in less populated states and rural areas. One of our first collaborative efforts with the Kauffman Foundation was to use their Internet-based on-line library and research facility, [EntreWorld](#). [EntreWorld](#) is a complete on-line source of research and current thinking on entrepreneurship and small business that is maintained by the Kauffman Foundation.

We have additionally asked Robert Morris University in Pittsburgh, Pennsylvania, which has conducted several of our VET Program courses, to consider establishing an **Institute for Veteran Entrepreneurship and Economic Development** that would outwardly and very visibly promote veteran entrepreneurship within the local business and academic communities, as well as continue to promote and support entrepreneurial education.

We have found over the past 20 months that there are two critical success factors for the VET Program. One is locating competent, qualified, affordable partners with effective marketing experience into the Veteran community to facilitate the VET Program entrepreneurial courses, and the second is building a local coalition to support the VET Program for the long run.

Edward G. Lewis  
Congressional Testimony  
House Committee on Small Business  
June 2, 2004

As we continue to develop our VET Program, we continually explore ways to increase our Veteran outreach by forming partnerships at the local and state level with other quality FastTrac™ providers, including Small Business Development Centers, SCORE, universities and colleges, and non-profits.

We have held detailed discussions with individuals in the Manufacturing Extension Partnership (MEP) within the National Institute of Standards and Technology in order to develop a collaborative relationship to develop and implement the VET Program within the MEP Centers.

We have been working with several Small Business Administration (SBA) components. In FY 2003, SBA's Office of Veteran Business Development provided us with seed money to fund our pilot VET courses.

We are currently working with the Association of Small Business Development Centers and the Department of Veterans Affairs, including their Center for Veteran Entrepreneurship, to help facilitate implementation of the provisions of the recently passed Public Law 108-183 that can provide service members and Veterans who have Montgomery GI Bill Benefits with funding to pay for entrepreneurial education courses.

Finally, we want to recognize and fully support the continued efforts undertaken by the House VA Committee to support Veterans' employment, both as a small business owner and as a job seeker in the civilian economy. The recent Veterans Earn and Learn Act would help modernize on-the-job training and apprenticeship programs reflecting today's workplace, helping Veterans train and/or retrain for a new occupation in the civilian market.

In addition to formal classroom educational opportunities to support entrepreneurial Veterans in starting and building their small business enterprises, strong and continued support for job training and retraining efforts, to include on-the-job training and apprenticeship programs, for Veterans is an essential component in support of this Nation's economic growth and competitiveness in the global world marketplace.

More importantly for The Veterans Corporation, this is an outstanding opportunity for Veterans to help Veterans. With enhancements to support on-the-job training and apprenticeships programs, entrepreneurial Veteran small business owners can more effectively reach out and help support other Veterans in the job market. Through these enhanced programs, Veteran small business owners can employ and retain skilled Veteran workers within their small business enterprises. These activities would thus support, emphasize and encourage the link between in-depth training afforded to service members while serving in the Armed Forces and effective training available in the civilian business environment, thus contributing to a more educated and productive workforce.

### VETERAN ENTREPRENEURIAL TRAINING (VET) PROGRAM METRICS

We also need to develop effective metrics that can be easily managed and analyzed. Currently, our performance measures for the VET Program are primarily obtained from questionnaires to participants. One questionnaire is on our website at registration. Kauffman Foundation has a questionnaire at the beginning and end of each FastTrac™ course, and we administer a separate questionnaire at the end of the course, as well. To date, our end-of-course results reflect that Veteran graduates rate the courses as “4.5” on a scale of 1-5, with 5 being excellent.

We are currently developing, with the Lowe Foundation, a detailed questionnaire for those participants who graduated from a VET Program course over a year ago to find out what effect the course may be having on the long-term success of their businesses.

Recently, we conducted an initial survey of the Veteran graduates from the first three pilot courses in early FY 2003 (20 completed surveys returned from 58 graduates). The results of this initial survey are provided in Table 3.

**TABLE 3**

#### INITIAL VET PROGRAM SURVEY RESULTS (THREE PILOT COURSES)

20-May-04

	TOTAL	IN BUSINESS	NOT IN BUSINESS
RESPONSES	20	17	3
STARTED NEW BUSINESS			1
RAISED ADDITIONAL CAPITAL	5	5	
HIRED NEW EMPLOYEES	8	8	
INCREASED REVENUES	17	17	

These initial results suggest that the VET Program courses contributed significantly to the improvement of ongoing Veteran-owned small business enterprises.

When fully implemented we intend to survey past Veteran graduates each year to develop accurate trend data and provide feedback to improve the courses.

#### **FUTURE VETERAN ENTREPRENEURIAL EDUCATION EFFORTS:**

In the past and today, many organizations, both in the private and public sectors, provide some form of education and educational assistance, in the context of courses, classes, mentoring & counseling, and financial aid that Veterans may use in support of their entrepreneurial efforts and small business activities. Although many of these individual organizational efforts have provided excellent support to Veterans, there has not been, and currently there is not, an overall dedicated effort encompassing all aspects of entrepreneurial education and educational assistance specifically directed towards Veterans.

The Veterans Corporation, including the Board of Directors, is currently in the initial stage of developing and evaluating a concept, referred to as the **National Veterans Entrepreneurial Education Initiative**. The overall goal of this Initiative would be:

To provide high-quality entrepreneurial education in the most cost-efficient & effective manner possible to as many Veterans as possible, including Reserve and Guard personnel, to assist these Veterans in their entrepreneurial endeavors and small business activities.

The purpose of this National Veterans Entrepreneurial Education Initiative would be to bring together people, and organizations, with the experience, knowledge and understanding of the critical issues involved in and with the resources and capabilities to support the following three tasks in order to build an overall dedicated effort encompassing all aspects of entrepreneurial education and educational assistance specifically directed towards Veterans.

- 1) **to develop and provide a coordinated, national-level focus and framework** dedicated to providing entrepreneurial education and educational assistance specifically for Veterans,
- 2) **to build consensus and the necessary coalition of people and organizations** dedicated to building and implementing this coordinated, national-level focus and framework on entrepreneurial education and educational assistance specifically for Veterans, and
- 3) **to identify, leverage and use all available resources and capabilities** across this Nation, both in the private and public sectors, in order to succeed in providing this coordinated, national-level focus and framework on entrepreneurial education and educational assistance specifically for Veterans.

The intent of this National Veterans Entrepreneurial Education Initiative is to develop and provide a strategic vision and strategic leadership at the national level, building a coalition of private and public organizations which will focus on the five critical C's to achieve successful implementation of this Initiative: commitment, communication, coordination, collaboration, and cooperation. It is clear from our mandate in Public Law 106-50 that The Veterans Corporation must assume a proactive, positive leadership role in building this coalition and in coordinating the effective implementation of this Initiative

Edward G. Lewis  
Congressional Testimony  
House Committee on Small Business  
June 2, 2004

This strategic vision would include an all encompassing, comprehensive, lifelong entrepreneurial learning continuum, to include a wide range of formal and informal entrepreneurial education, training, mentoring and counseling, and assistance for Veterans in full support of their entrepreneurial endeavors and small business activities.

Once the strategic vision and strategic leadership are established at the national level, then the focus would be on establishing the necessary coalition of individuals and organizations at the local level to successfully implement this Initiative. This coalition building at the local level would focus on and leverage many of the successful educational and mentoring efforts in support of Veterans today, including those current programs sponsored by the Small Business Development Centers, SCORE, Women Business Centers, MEP, universities, as well as The Veterans Corporation's FastTrac™ Program.

A Task Force, consisting of various private and public organizations, has been established as the first step in building the necessary coalition of key people and organizations to help develop and evaluate this Initiative, and hopefully lead to its successful implementation.

In addition to the National Veterans Entrepreneurial Education Initiative, The Veterans Corporation is also in the process of developing a parallel initiative, referred to as the **National Veterans Community-Based Organization Initiative**. The purpose of this Initiative would be to establish Community-Based Organizations (CBO) at the local level, building the necessary coalition of people and organizations at the local level to assist Veterans in their entrepreneurial endeavors and small business activities. Currently, two CBO pilot tests are under development in St. Louis and in Pittsburgh. We are working very closely with individuals and local organizations in these two cities to help them succeed in these CBO efforts. Their success will allow The Veterans Corporation to move forward and significantly expand the CBO concept across this Nation at the local level.

In the long term as these two Initiatives evolve and a strong network of Community-Based Organizations supporting Veteran entrepreneurship is established across this country, the Education Initiative would merge into and become a significant component of the overall Community-Based Organization environment, which would provide a full range of support, including entrepreneurial education, mentoring and counseling, for Veterans in all aspects of their entrepreneurial endeavors and small business activities.

The Veterans Corporation and its Board of Directors are continuing to assess thoroughly the feasibility of full implementation of both Initiatives. These Initiatives will be discussed and evaluated in detail at our July Board meeting.

## SUMMARY

In The Veterans Corporation, we are proud of our efforts over the past 20 months in providing effective entrepreneurial education to Veterans, including Service-Disabled Veterans. Although at this time our accomplishments may appear small in scope, The Veterans Corporation is itself a small, entrepreneurial business in its own startup phase. As we have evolved our Veteran Entrepreneurial Training Program, we have learned many valuable lessons in developing and presenting effective entrepreneurial education, lessons to be applied to future educational endeavors in support of Veterans in their entrepreneurial activities and small business enterprises.

Many of us also realize that, for The Veterans Corporation to be truly successful in helping entrepreneurial Veterans over the long term, we must be able to develop and deliver effective programs and services that are unique and that directly support Veteran entrepreneurship, including entrepreneurial education, mentoring and counseling. We also realize that, to make a significant difference with our programs and services in the Veteran community and with key stakeholders, we must significantly grow these capabilities in order to reach out to as many Veterans as possible providing them with the highest quality, most cost-effective and efficient programs and services possible, including entrepreneurial education, mentoring and counseling.

Uniqueness and growth are critical, significantly more can be done, more entrepreneurial education, mentoring and counseling can be provided to Veterans with sufficient future support and funding, but resources are very limited. Therefore, to be successful over the long term, to effectively support Veteran entrepreneurial activities and small business enterprises, The Veterans Corporation must continue to develop effective coalitions, collaborative and cooperative partnerships, and relationships with key people and organizations, both in the private and public sectors to assist The Veterans Corporation in carrying out its mandate under Public Law 106-50. Only in this way can The Veterans Corporation leverage our recent successes in providing effective entrepreneurial education to Veterans and build upon these successes to provide a dynamic, all encompassing, lifelong learning approach to entrepreneurial education, mentoring and counseling available to all Veterans in support of their entrepreneurial endeavors and small business enterprises.

Only in this way can The Veterans Corporation effectively over the long term support the goals of this Committee in making education, training and retraining a national priority at all levels. The Veterans Corporation will assist in responding to this Nation's evolving and future economic, scientific and technological challenges; in sustaining this Nation's economic competitiveness in the global marketplace; and in creating challenging job opportunities by providing effective, high-quality entrepreneurial education and training to support Veteran entrepreneurial endeavors and small business enterprises through effective coalitions and collaborative efforts.

Finally, in addition to my role as Chairman of the Board of The Veterans Corporation, my views today on these very critical education and training issues are based on my over fifteen years of university teaching experience, including over 350 graduate and undergraduate management, engineering and

Edward G. Lewis  
Congressional Testimony  
House Committee on Small Business  
June 2, 2004

information technology courses, primarily at the University of Denver, University of Colorado, and the U.S. Naval Academy.

My views on education and training are further reinforced by my experience in presenting over 127 management and technology seminars on a worldwide basis over the past 12 years; by my experience as Chief Information Officer and Assistant Secretary for Information Resources Management in the Department of Veterans Affairs in 1989-1991; by my experience in the U.S. Marine Corps in participating on the task force to fully evaluate and develop a totally new, integrated approach to Marine Corps training in 1979-1980; and by numerous other management, training and technology experiences over the past thirty-seven years.

Again, thank you very much Mr. Chairman and Distinguished Members of the Committee for this opportunity to express my views on these critical education and training issues in support of our national priorities, and particularly the successful role of The Veterans Corporation in support of Veterans in their entrepreneurial endeavors and small business activities through effective entrepreneurial education. I now would be pleased to address any of your questions.

TESTIMONY OF BETH B. BUEHLMANN  
VICE PRESIDENT AND EXECUTIVE DIRECTOR  
CENTER FOR WORKFORCE PREPARATION  
U.S. CHAMBER OF COMMERCE

COMMITTEE ON SMALL BUSINESS  
CONGRESS of the UNITED STATES

House of Representatives

107<sup>th</sup> Congress

June 2, 2004

Center for Workforce Preparation  
U.S. Chamber of Commerce  
1615 H Street, N.W.  
Washington, DC 20062-2000  
202-463-5525



**Testimony of Beth B. Buehlmann  
Vice President and Executive Director  
Center For Workforce Preparation  
United States Chamber of Commerce  
Before The  
Committee on Small Business  
Congress of the United States  
House of Representatives  
107<sup>th</sup> Congress  
June 2, 2004**

Mr. Chairman, Congresswoman Velazquez, and Members of the Committee:

As vice president and executive director of the Center for Workforce Preparation (CWP), I am pleased to share my views on the role of job training and education in sustaining America's economic competitiveness in the world market and job creation. CWP is a nonprofit affiliate of the U.S. Chamber of Commerce, the world's largest business federation, representing more than three million businesses and organizations of every size, sector and region.

CWP is the only arm of the U.S. Chamber dealing solely with education and workforce development issues. Through its access to a broad network of chambers, CWP is on the forefront helping businesses and chambers in their communities find, use and build resources to develop a skilled workforce and support productive workplaces. CWP, in partnership with local chambers, other workforce development organizations and committed funders, is addressing a key employer concern – finding, retaining and advancing qualified workers. Over 90% of the businesses that are members of chambers are small and medium-size. It is for this reason that CWP and local chambers excel at reaching businesses of this size, where the majority of job growth occurs.

Workforce development, however, is about more than just hiring and training the right workers. It is also about identifying and addressing other critical concerns such as transportation, health care and child care as well as promoting the lessons and promising practices of successful communities to encourage chambers and employers to leverage resources that support productive workplaces.

I bring to bear before the Committee, a perspective on the issue that comes from many years in the education field as well as working with state, regional and local chambers across the country. My remarks will cover the following points: 1) statistics on the past, present and future American workforce; 2) the role of job training and retraining to keep pace with the future job market; and 3) how investing in education on all levels is key to keeping America competitive in a global economy.

#### **The Nation's Workforce: Past, Present and Future**

Across America, employers of all sizes share the view that a skilled workforce is essential to maintaining competitiveness. Chambers consistently report that workforce development is among the top three concerns of their business members. In CWP surveys of small and medium-size businesses conducted over the past three years, employers report difficulty in finding qualified workers due to a lack of skills. Even more revealing were their responses when asked about the ability of their current workforce in meeting their future skill requirements. Within two years, about 30 percent of these employers no longer believe that the skills of their workforce will keep pace. Business quality, productivity and profitability depend on qualified workers who can perform on the job today and adapt to the demands of tomorrow.

Technology, demographics and diversity have brought far-reaching changes to the U.S. economy and the workplace. Yesterday's luxury of an education beyond high school has become today's necessity. To be competitive and sought-after in the 21st century job market, Americans, whatever their background, must have at least 15 years of education and training over the course of their lives. In 1950, 80 percent of jobs were classified as "unskilled." Now, an estimated 85 percent of all jobs are classified as "skilled." Today, few working adults have the education and skills required for a knowledge economy – only 40 percent of adults in the workforce in 2000 had any postsecondary degree, associates or higher. In this decade 40 percent of job growth will be in jobs requiring postsecondary education, with those requiring associates degrees growing the fastest. Hedrick Smith states that, *"60% of our corporations are prevented from upgrading technologically by the low...educational and technical skill levels of our workers."* Clearly, there is an increasing demand for more educated and highly skilled workers than ever before. Every unfulfilled job translates to

products and services we cannot deliver to the global market and, therefore, dollars we cannot return to the U.S. economy. <sup>1</sup>

One might think the answer lies in simply replacing unqualified workers with new, more qualified workers because that has been the response over the past 20 years. From 1980 to 2000 the size and skill of the workforce grew significantly. Baby boomers were in their prime employment years, women entered the labor force in large numbers, and the number of college-educated workers more than doubled. However, these trends have ended.

The native-born workforce is aging – no new growth of native, prime age workers between the ages of 25 to 54 is expected through 2020. Any net workforce growth between now and 2020 is expected to come from immigrants and older workers staying in the workforce longer or returning after retirement. Growth in workers with education beyond high school between the years 1980 and 2000 was 138 percent. Between 2000 and 2020 it is projected to be only 19 percent.

Unfortunately, these findings also suggest that the severity of these current workforce challenges is just a precursor to a disconcerting forecast for the future. Looking forward, it is estimated that 60 percent of tomorrow's jobs, while involving variations of current business operations and practices, will continue to reflect the rapid advance of technology, requiring skills that are only possessed by 20 percent of today's workers. Many of tomorrow's jobs – estimated at 40 percent – don't exist today. These jobs will most certainly require a workforce of highly educated workers, utilizing skills that have not yet been identified in fields and operations that, at the moment, are only being discussed in theory. These forecasts have led experts and analysts to project that, in the future, 4 out of every 5 jobs will require postsecondary education or equivalent training and that 75 percent of today's workforce will need to be retrained just to keep their current jobs.

### **Keeping Pace: Job Training and Retraining for the 21<sup>st</sup> Century**

*"The success of retraining depends on many factors, including the availability of jobs, the characteristics of the workers themselves and the quality of the training resources provided"*

-- Nell Henderson, The Washington Post, April 16, 2004

---

<sup>1</sup> The Jobs Revolution: Changing How America Works by Steve Gunderson, Robert Jones, and Kathryn Scanland

CWP recognizes that technological advances, coupled with increased competition from abroad, have left employers with higher skill needs than ever before. Yet, a significant number of entry-level workers are not equipped with the academic, practical, technical and occupational skills needed to succeed in an increasingly complex and technological work environment.

Sigurd Nilsen, director of education, workforce and income security at the U.S. General Accounting Office, and other researchers say worker retraining programs appear to work best when they prepare individuals for a specific, existing job<sup>2</sup>, such as when a local business works with a nearby community college to develop a program specifically designed to train workers for skills needed in the workplace. CWP, with state and local chambers, fosters those types of collaborations between colleges, employers and the publicly-funded workforce system. Through initiatives such as Job Corps, Workforce Development Learning Academies and the Transitioning Military Demonstration project, CWP has a proven track record of facilitating connections among key community stakeholders to help small and medium-size businesses secure a qualified workforce and compete in the global economy.

Although corporate training is increasing, most small and medium-size businesses do not have the human resources infrastructure to train their workers in-house. Chambers can connect small and medium-size business to the resources available in the community and can aggregate the demand of local employers to leverage those resources. Chambers can help bridge the gap between employers and workforce development providers and services, connecting businesses with the best programs to meet their needs. These connections are key to facilitating change and improvement in local workforce development and education systems, policies and practices.

CWP's experience in the area of workforce development and quality education has resulted in understanding that worker training must be at the center of a broad effort to create a workforce that can drive economic growth. Training is a perfect illustration of why strategies that involve different sectors are needed to meet the challenges that lie ahead. Market forces alone have not created the kind of skilled labor force we need and with the establishment of the Workforce Investment Act, we have just begun to have an impact on the quality of the nation's labor force.

---

<sup>2</sup> Nell Henderson - The Washington Post, 4/16/04

We have learned that today's most successful training programs are closely connected to local markets and specific employers. They provide employers with training carefully geared to their specific needs and often lead to increased profits and reduced turnover costs through the advancement of workers. These programs can take many forms:

- In-house training programs – customized training programs that are typically developed as partnerships between specific employers and community colleges, local training programs or community organizations.
- Industry/Occupation specific training initiatives – serves multiple employers, often through consortia of businesses with relatively similar skill and training needs
- Training linked to the creation of new companies/cooperatives – provides training, then helps workers become part of a new enterprise, often a cooperative, to provide services such as home health care or child care.
- Broad-based career ladder initiatives – builds more structured career ladder opportunities across firms within industry sectors to create a seamless progression of advancement and replacement within companies, industries and communities.<sup>3</sup>

The key strengths of these programs are the flexibility and knowledge of the industries they serve. Governments at all levels, businesses, unions and community groups should emphasize these market-driven strategies. For small and medium-size companies, chambers can make connections with training programs and services that small and medium-size businesses find difficult to make on their own.

#### **Recommendations for Consideration**

Policymakers and businesses are encouraged to consider the following:

- Develop training programs that are closely tied to specific industries with less emphasis on traditional classroom or unrelated learning programs.
- Provide employers with more tax incentives for training offered in-house or in partnership with other organizations – particularly training aimed at entry-level workers including adult basic education and ESL.
- Link welfare reform to employer-based training directly linked to specific jobs.

---

<sup>3</sup> Grow Faster Together. Or Grow Slowly Apart: How Will America Work in the 21st Century?, The Aspen Institute-Domestic Strategy Group

- Encourage the development of new training efforts that lead to advancement through the creation of career ladders.
- Offer support to workforce development intermediaries that are working to create industry and occupation specific, multi-firm training and career ladder strategies.
- Promote high quality and consistent services.
- Reduce restrictions on incumbent worker training options, especially for small and medium-size businesses in high-growth industry sectors.

### **American Education: Investing in the Nation's Economic Future**

Looking ahead, employers and workers are going to place greater reliance on all levels of education to address the ever-increasing skill demands of a competitive American economy. Lifelong learning for working adults, K-12 and postsecondary education all play a specific role in preparing the present and next generation of workers for the challenges of the 21st century labor market.

#### Lifelong Learning for Adult Workers and Nontraditional Students

Former Secretary of Education Richard Riley recently noted that none of the top ten jobs that will exist in 2010 exist today and that these jobs will employ technology that hasn't yet been invented to solve problems we haven't yet imagined. Knowledge is being outdated at rates that are still escalating. Even where knowledge is current when students graduate, it is soon outdated. While the number of new careers is increasing, the life-span of applicable knowledge is decreasing. College degrees maintain their relevancy for much shorter time periods. For example, a bachelor's degree in business now has a shelf-life of about five years. Clearly, providing continuing education opportunities for employees is no longer an option, it is a necessity to staying competitive.

Today, more and more working adults are enrolling in postsecondary education. Seventy-three percent of all postsecondary students are nontraditional students. That is to say, they are not individuals that graduate from high school, go immediately to a four-year college and depend on parents for financial support. This large and growing segment of the higher education population is mostly comprised of working adults who are seeking additional education and training to return to the workforce, trying to remain current in their field, looking to increase their earnings potential, pursuing another job or considering a career change in today's demanding economy.

Adult workers are balancing careers, family responsibilities, financial and other personal obligations to get the education they need to advance in the workforce. They cannot afford to reduce their hours on the job and risk losing valuable wages while incurring additional expenses, such as tuition and childcare. Similarly, employers want and need their employees to keep pace with the escalating skill demands of the workplace.

Employers, especially small and medium-size, are not able to interrupt their operations for employees who are attending classes that make them unavailable during normal business hours. We need to examine the policies that we have in place. Many only focus on the needs of traditional students, and miss a very large group of nontraditional and working adult students.

The strength of America's postsecondary education system is the diversity and types of institutions providing courses, programs and training for adult workers – two and four year, public and private, and non-profit and for profit. Some institutions are better able than others to provide coursework that is relevant to the workplace. Others can adjust more quickly to the needs of employers with just-in-time training.

Postsecondary education needs to become the wellspring for continuous learning. However, no single institution can manage America through the jobs revolution, which is part of the challenge. This is everyone's problem and, therefore, it belongs to no one. The challenges are spread across many institutions from churches to corporations, schools to political parties. We are rapidly becoming better at seeing the problems – from minority education to an aging workforce – but these are problems no one institution can solve. However, postsecondary education, including graduate education, is uniquely positioned to forge new collaborations with private- and public-sector interest groups, on- and off-campus, on- and off-line.<sup>4</sup>

#### K-12 and Postsecondary Education

Employment in the American and global workplace is increasingly reserved for the skilled and simply providing job training will not help workers compete, advance and excel in the workplace. The maintenance of a strong and capable workforce depends on the quality of our education system at every level.

A distinct gap exists between what businesses, postsecondary education and communities expect and need, and the skills students acquire through K-12

---

<sup>4</sup> The Jobs Revolution: Changing How America Works by Steve Gunderson, Robert Jones, and Kathryn Scanland

education. The reality is that our society has placed many different expectations on the K-12 system regarding the preparation of high school graduates, and as a result, our students have not kept pace.

Sixty-seven percent of 9th graders graduate. Yet only 32 percent of those who graduate from high school are prepared for college coursework. According to a 2002 study by the American Diploma Project, most high school graduates need remedial help in college. More than 70 percent of graduates enter two- and four- year colleges, but at least 28 percent of those students immediately take remedial English or math courses. Transcripts show that during their college careers, 53 percent of students take at least one remedial English or math class. The percentages are much higher for disadvantaged and minority students.

Most college students never attain a degree. While a majority of high school graduates enter college, fewer than half leave with a degree. Significantly fewer blacks and Hispanics than whites attain bachelor's degrees. Many factors influence this attrition, but the preparation students receive in high school is the greatest predictor of bachelor's degree attainment – more so than family income or race.<sup>5</sup>

There is also a large disparity between high school graduation and college application requirements. Most high school exit exams don't measure what matters to colleges and employers. Nearly half the states require students to pass exit exams to graduate, but these exams generally assess 8th or 9th grade content, rather than the knowledge and skills that adequately prepare students for credit-bearing college courses or high-performance, high-growth jobs.

Because few employers ask for high school transcripts as part of their hiring procedures, it is hard for students to understand how classroom studies translate to specific job functions and career progression. The lessons are forgotten as soon as they are taught. This attitude is called "don't know/don't care" due to the fact that students do not know why certain courses are being taught and they perceive that colleges or employers do not care about the kinds of courses they are taking or their attendance records.

Not only do we need to do a better job in reducing our dropout rates, we need to do a better job relating high school coursework to what will be demanded

---

<sup>5</sup> Ready or Not: Creating a High School Diploma That Counts. Executive Summary by The American Diploma Project, a partnership of Achieve, Inc., The Education Trust and the Thomas B. Fordham Foundation



of high school graduates whether they enter the workforce immediately or go on to postsecondary education. What is required is a nationwide commitment by government, businesses and communities to provide all students with rigorous and challenging academic preparation.

### **Recommendations for Consideration**

Improvements in the educational system at the K-12 and postsecondary levels should include efforts to:

- Encourage policies that foster collaboration among all types of institutions, including four-year institutions, community colleges and proprietary schools;
- Promote financial aid reforms to help nontraditional students obtain access to postsecondary and ongoing education; and
- Broaden access to distance learning to accommodate the lifestyles and geographic restrictions of nontraditional students in postsecondary education.
- Strengthen the assessment provisions under the No Child Left Behind Act to ensure the high academic performance of every K-12 student.
- Provide for provisions mentoring and after-school programs targeted to underachieving students.
- Invest in on-going professional development for teachers on all levels.
- Support the practice of having employers asking for high school transcripts as a requirement for employment.
- Utilize programs to promote a more rigorous high school curriculum such as the states scholars program.

CWP, in partnership with local chambers, other workforce development organizations, and funders has been instrumental in defining and demonstrating the unique role of local chambers in workforce development and education. CWP assists chambers in the development and implementation of effective local workforce development strategies relevant to their members. These activities include:

- a partnership with the American Association of Community Colleges to develop the capacity of chambers and community colleges to be more market-responsive and relevant to the local employment needs of businesses in the community;
- creating state-wide partnerships with chambers of commerce, one-stop centers, Job Corps centers, and local education systems to strengthen and foster a "pipeline" for current and future employees.
- a collaboration with the VHA Health Foundation and community partners in three locations to develop an industry sector approach to

expanding the pool of qualified workers in the local health care industry by coming together to create a community-wide career ladder.

- development of a School-to-Career toolkit -- portions of which are still in use by businesses such as Marriott Corporation.
- identifying exemplary models of service designed to engage small businesses in the workforce investment system and connect the High Growth Job Training Initiative to employer needs as identified by workforce investment boards and employer organizations.

### **Conclusion**

Education must be seen not simply as a goal but, in a jobs revolution, as the most critical strategy. Learning should be recognized for what it is, a tool that enables us to work, to play, to dream and to live with greater security, broader satisfaction and better service. It is not an end in itself. It equips us to make a difference in our lives and the lives of others and ultimately, the economic security of our nation.<sup>6</sup>

Mr. Chairman, any meaningful strategy to combat the nation's workforce challenges must begin with a comprehensive education and workforce development system that incorporates the realities of a global economy. We are already attempting to improve our K-12 system, making it more competitive with other industrialized nations and leading to a more knowledgeable and highly skilled American workforce in the coming decades. We must also expand our services in the postsecondary education system to accommodate adult working students. In today's and tomorrow's global community, lifetime learning has become mandatory and should be accessible, flexible and convenient to help maintain America's competitive workforce. I want to thank the Committee again for this opportunity to testify.

---

<sup>6</sup> The Jobs Revolution: Changing How America Works by Steve Gunderson, Robert Jones, and Kathryn Scanland



4350 N. Fairfax Drive, Suite 440  
Arlington, Virginia 22203-1624  
703-812-1333  
703-812-1337 FAX  
[www.comptia.org](http://www.comptia.org)  
[publicpolicy@comptia.org](mailto:publicpolicy@comptia.org)

**Testimony of Brian A. McCarthy, Chief Operating Officer  
Computing Technology Industry Association (CompTIA)**

**U.S. House of Representatives Committee on Small Business  
"Careers for the 21st Century: The Importance of Education and Worker  
Training for Small Business"  
Wednesday, June 2, 2004**

Mr. Chairman, members of the Committee, good morning. Thank you for the opportunity to appear before you today. I am delighted to participate in this hearing on the importance of worker training and retraining.

I am Brian McCarthy, Chief Operating Officer for the Computing Technology Industry Association (CompTIA). I am here today representing CompTIA's more than 19,000 members, the majority of which are small-to-medium-sized enterprises (SMEs) in the global information technology (IT) industry. In Illinois alone, we have almost 400 small business locations.

For more than 22 years, CompTIA has been dedicated to advancing the growth of the IT industry and those working within it. With more than 19,000 members in 89 countries, CompTIA is the world's leading IT trade association representing nearly all areas of the IT industry. CompTIA is committed to fostering the growth of the IT industry by promoting industry standards, growing professional IT expertise, providing IT skills, education and training, and developing relevant business solutions.

CompTIA also serves the IT industry as the world's largest developer of vendor-neutral IT certification exams. Experts and industry leaders from the public and private sectors, including training, academia and government, work with CompTIA to develop broad-based, foundational exams that validate an individual's IT skill set. To date, more than 700,000 people worldwide have received a CompTIA certification.

CompTIA's membership includes training providers, manufacturers, distributors, resellers, solution providers, ISPs, ASPs, software developers, e-commerce and telecom companies. As a result of CompTIA's involvement in IT education, training and public policy, many academic, not-for-profit and government agencies have also joined the association.

The focus of today's hearing is on the importance of training and retraining of America's workforce in order to maintain our economic competitiveness in a global environment. CompTIA believes that we must promote public and private-sector efforts to provide Americans with the tools they need to compete and succeed. Key among those tools is the acquisition of current and evolving IT skills – skills that are increasingly demanded in order to be successful in today's economy.

#### **PROMOTING IT SKILLS FOR AMERICA'S WORKFORCE IS KEY**

Though America has been blessed with an abundance of natural resources, clearly, our nation's most important assets are our workers. Development of and investment in the future of our citizens is critical for our nation's economic well-being. The most productive and cost-effective way to achieve and boost America's competitive workforce is to concentrate on continual workforce training and re-training. In other words, we need to make sure that our workers – incumbent and displaced – have the skills that they need to meet the needs of employers both today and in the future.

Employers of today and tomorrow will demand workers who know how to effectively use IT, and develop those skills as IT evolves. IT skills are in high demand because, quite simply, IT increases productivity across all sectors. Development of the information technology (IT) workforce in the United States offers the most cost efficient way of maintaining American competitiveness in an increasingly networked world.

As you may know, IT did not just spring up overnight. Over the last half of the last century, private and public research and development coalesced, bringing into existence the "computer" in 1946 – a room-sized machine called the ENIAC, weighing 30 tons, and running on 18,000 thousand vacuum tubes. Further refinements in computer, transistor and integrated circuit technology lead to the development of the microprocessor in 1971, which in turn helped lay the groundwork for the groundbreaking IBM Personal Computer (PC) in 1981. With the huge popularity of the IBM PC, run on MS-DOS, the software applications market was essentially borne, eventually maturing into the approximately \$300 billion market it is today, servicing virtually every sector of the global economy.

While the PC was coming into its own, telephone/communications technology made similar advancements, leading to ARPANET in 1969 – a Defense Department project that could enable communications during nuclear attack occur. From ARPANET eventually sprung the Internet, and then World Wide Web (WWW). In 1994, the graphic interface for the WWW – the Netscape Web Browser – was shipped, helping the WWW become almost instantly commercially/popularly viable. Today, over 150 million Americans access the Internet through landline or wireless configurations, all enabled by IT.

Most Americans and, more importantly, American companies, depend in some manner on IT – yet one doesn't need to own a PC or access the Internet to be part of our IT-dependent culture. From our workplace and homes to our hospitals, our police forces, our transportation, energy and financial infrastructures and beyond, IT's complex strings of Zero's and One's help direct, coordinate, supervise, regulate and organize complex interactions, processes, transactions, events and activities that were at one time the sole province of direct human intervention.

Needless to say, the changes wrought by IT on society are changing the fundamental nature of the workplace, especially for the American worker. IT by definition is and will be a high growth area throughout the 21<sup>st</sup> century because IT is a major driver of productivity growth, enabling companies and individuals to more ably compete through better, cost-efficiently-produced products and services. As global competition intensifies, the dependency on fluent and flexible IT skills will only grow. Not surprisingly, much of the need for those skills will be from U.S. small businesses.

American small businesses make up the lion's share of commercial enterprises in the U.S., representing over 90 percent of all U.S. businesses. As leaders in innovation and creativity, small businesses are the unnoticed foundation of industry. Every successful global enterprise has to start somewhere. And small businesses employ more IT professionals than you might think. According to the U.S. Department of Labor, around 92 percent of all IT professionals work in non-IT companies, and 80 percent of those professionals are working for small companies.

Undoubtedly, cheap and ubiquitous IT helps American small businesses stay competitive, not only here in America, but with companies abroad. Though IT "matters," software and hardware are only small pieces of the puzzle. In other words, IT only works because of people. Thus, while it may seem obvious, having the skilled workers who know how to use it effectively is essential. That noted, this is an ongoing challenge for businesses of all sizes, especially for small businesses.

For American small businesses, many IT jobs go unfilled because there aren't enough people with the right skills to fill them. Where this occurs, companies are put at a competitive disadvantage, having either to forego their labor requirements, import skilled labor, or go offshore for their workforce needs, or worse, forego business opportunities. Reasons that may cause this kink in the pipeline include: a mismatch between employer skills demand and worker training and education; the high hurdles that small businesses experience when investing in training; and, the often unappreciated need for constant retraining and re-skilling of IT workers in the face of rapid technological changes.

We recently surveyed some of CompTIA's small business partners to assess the challenges they face in training their workforce; the level of importance of training; whether on-the-job training is included as part of the training program; and, what solutions are needed by small businesses.

What we already know is that most small businesses in the IT arena are operating on narrow margins. Thus it is increasingly important for small IT businesses to equip employees with essential technical training in order to support their client's complex business systems. Each customer's IT environment is different and rapidly changing. Small businesses are leaner and thus require highly skilled employees to perform multi-specialized IT functions efficiently. As a small business, the only way for them to achieve their growth strategies is by utilizing a highly competent workforce to support their customer's business objectives.

What we continue to find is that in order to remain competitive, the small business see workforce training and certification as a means to differentiate themselves from or level the playing field with the large organizations. Training and certification provides them with a competitive edge or at the very least, an opportunity to compete.

Echoed throughout this industry are statements made by contractors that they can't find a qualified SME – and "qualified" means having a skilled, trained and certified workforce. As a business, you can no longer be a "generalist". As technological solutions grow more complex encompassing multivendor environments requiring interoperability and substantial service support, their clients are requiring a more competency-based approach to their investment in IT. So, specializing, doing it well and having a well-trained and skilled workforce is today's challenge faced by the typical small business solution provider. Conversely, the small business user of IT is finding it increasingly necessary to hire or train in-house IT staff to manage the interface between their business professionals and the IT infrastructure needed to support them effectively. In both these cases, businesses recognize the value of investing in training for personnel.

Underlying that challenge is the cost of training. Small businesses, especially those in the secondary/tertiary markets, are challenged by the sheer costs of training our workforce. Providing training and certification is costly to implement and manage. Because of these cost challenges, small businesses also need to evaluate alternative means of training, such as e-learning.

#### **COMPTIA/INDUSTRY INITIATIVES TO BETTER SKILL U.S. WORKERS**

CompTIA is committed to promoting efforts to provide Americans with the tools they need to compete and succeed, getting IT-skilled workers into the pipeline for U.S. small businesses. In order to most efficiently serve our workforce

community and the businesses that employ them, CompTIA has developed specialized initiatives and private/public partnerships dedicated to IT training and certification across industry sectors.

I'd like to highlight some of our important training initiatives currently underway:

#### **I. The National IT Apprenticeship System (NITAS) --**

Traditional methods for evaluating, training and tracking the performance of IT professionals are no longer sufficient for today's complex, competitive business environment.

In partnership with the U.S. Department of Labor, CompTIA jointly developed and is delivering an innovative program called The National IT Apprenticeship System (NITAS). The IT apprenticeship model gives businesses a faster, more efficient path to higher productivity and a more capable workforce by combining industry best practices and job-critical skills with the practical knowledge of experienced IT employees.

Believing that hands-on experience is a critical predictor for a worker's success on the job in the IT field, the NITAS program builds upon the ICT Skills Standards developed by the industry on behalf of the US Department of Labor and provides IT employees with the right skills and the hands-on experience to make a lasting, positive impact with their employers. NITAS applies training and certification programs tailored to the specific needs of businesses by mapping the training to the real skills IT employees require on the job and validating those on the job skills learned from the mentoring process.

NITAS is a true partnering among employees, employers and educational institutions. The program places new workers under the mentorship of experienced IT professionals and provides a structured program for measuring practical skills and achievements, identifying weaknesses and skill gaps, and applying classroom and on-the-job training to address those gaps.

Technology has changed how workers perform their work, but technology has not changed the way workers need to learn their jobs. Research studies performed by the Department of Labor and by CompTIA indicate that on-the-job training is much more effective when combined with classroom instruction than when delivered on its own. Workers still require the fundamental principles of apprenticeship, including the vital component of on-the-job training and structured guidance from those who are experts in a given field. The combined arrangement of structured on-the-job learning delivered under the mentorship of an experienced worker, and related classroom instruction -- the cornerstones of the NITAS

initiative -- ensures a worker's employability and competency by providing a complete range of skills and knowledge during training.

The apprenticeship approach is a timelier, more economical and more comprehensive method of ensuring that workers are qualified for IT jobs. Key to the success of this program is partnering with community colleges, other educational institutions and employers.

NITAS provides the apprenticeship tools and infrastructure that ensure:

- New IT workers entering the organization become productive quickly with minimal start-up periods and with little or no re-work.
- Existing IT workers learn new jobs, roles and skills as quickly as possible with minimal errors made during the training period.
- Existing IT workers adapt to new technology and innovation more quickly and leverage those opportunities to secure competitive advantage for the organization.
- All IT workers understand and appreciate the business dimension of their work and are able to effectively integrate IT as a strategic business driver.

More information about NITAS can be found on our web site at [www.comptia.org](http://www.comptia.org).

## **II. Advanced Technical Skills Training Programs --**

CompTIA is also currently administering advanced technical skills training programs aimed at closing the skills gap in our nation's IT workforce. Under these programs, nearly 2,700 American technology workers in 12 states will receive advanced IT job training in the coming months in programs administered by CompTIA. (By way of background, each of these states or regions share a key characteristic -- a projected long term demand for IT professionals in high-skills, high-level positions.)

Training is tailored to the specific needs of the selected incumbent and unemployed workers, both in content and delivery, and may include on-the-job training, distance learning, or combinations of training and educational techniques.

Occupations targeted for advanced training include: web designers, web developers, network architects, systems engineers, software engineers, database administrators, systems analysts, software quality assurance specialists, IT project managers, IT security specialists, computer engineers, computer programmers, database administrators, systems architects, web architects, marketing engineers, network administrators, programmer analysts, security administrators, among others.



### **III. Tech Career Compass --**

Navigating today's information technology milieu is a constant challenge. Born out of a need to address the growing mismatch between job skills and skill requirements in the IT workplace, CompTIA developed another key workforce tool called TechCareer Compass (TCC). The TCC provides students, teachers, employers and IT professionals a powerful resource to enable IT career mapping in today's high tech economy. The new compass is the leading industry-designed resource to identify IT job roles, detail the unique knowledge and skills required for these job roles and map them to all industry certifications. The TCC is the first IT career guidance portal developed that houses the IT skill standards data as identified by the industry for the U.S. government and the foundation for the aforementioned NITAS program. The TCC includes job banks, assessments, resume & interviewing tools, other IT-specific sites and educational conferences.

### **IV. Education-to-Career (E2C) Career Prep Program --**

CompTIA is also engaged with education through the Education-to-Career (E2C) CareerPrep Program. E2C provides resources for the secondary and post-secondary education system to train and certify the next generation of IT workers and to help bridge the IT gap.

## **THE STATE OF THE IT TRAINING INDUSTRY TODAY**

The central challenge is matching employers' open positions with appropriately skilled job candidates and providing the appropriate training or retraining for potential candidates. To address this challenge, CompTIA has been instrumental in establishing a set of skill standards that define the diverse job roles and requirements of the IT industry, helping to identify and establish proper IT career paths.

But changing business, technology and regulatory environments also require the IT training industry to continually reevaluate and realign its business models to increase the knowledge, skills and abilities of the IT workforce. As part of its ongoing commitment to support the IT training industry and the communities it serves, CompTIA regularly brings together training providers, corporate users, hardware and software vendors, academics, certification and assessment providers, commentators and analysts.

As part of those ongoing efforts, next week CompTIA will release the findings of a new survey on "The State of the IT Training Industry in North America." The report presents a region-by-region picture of the IT training market from the providers' perspective. It will identify current and emerging trends, changing priorities, and future expectations.

The IT training industry has been through a difficult time for the last three years. But there is now a widespread belief among training companies that the next year will see a substantial improvement in market conditions. Among the survey's findings:

- The industry sectors showing a marginal increase in demand for IT training this year have been banking/finance/insurance, education, central and local government and petrochemicals/pharmaceuticals. All other sectors have declined slightly. Next year, respondents expect every sector to display increased demand, with the IT industry at the head of the list.
- Demand for training in most subject areas is expected to improve in the coming year. Among generic subjects, every topic listed in the survey is predicted to show increasing demand, with the strongest growth occurring in Security, Project Management and Soft Skills/Business Skills.
- Certification training will also return to positive growth.
- Employers remain the most important source of funding for IT training, though individual learners themselves (both career changers and those already employed in IT) and government are also significant sources. Respondents' forecasts indicate that all funding sources will show some increase next year.
- By a narrow margin, the most important issue to buyers of IT training is reducing its cost of IT training. Next year the number one priority for buyers is expected to be establishing the business justification for training. Calculating the return-on-investment for training is another – and related – key issue.
- Training providers reported a mean increase of 5 percent in training revenues this year. Projections for 2004-05 produce an expected mean growth rate of no less than 19%. This reinforces the optimistic outlook that was evident in their responses to individual questions, but it should also be seen as a warning sign that there may be a degree of over-optimism running throughout these findings, in relation to the scale – or at least the timing – of the expected upturn.
- Public scheduled instructor-led training (ILT), the principal revenue source for many training businesses, has suffered declining demand over the past year. But training companies expect a significant upturn over the coming year, with public scheduled and client site standard ILT returning to growth, and client site custom moving into 'strong growth'.

- Sales of computer-based training (CBT) are forecast to remain static, but all other areas of e-learning will experience accelerating growth. There is a widespread expectation that e-learning is going to generate an increasing proportion of training companies' revenues, both nationally and regionally. Across North America as a whole, 9% of training revenues have come from e-learning this year. This figure is predicted to rise to 14% in the next 12 months.
- Demand for blended learning has expanded well this year despite the generally subdued market conditions, and even stronger growth is expected next year.

**So, how do we address the challenges posed by the need to upskill America's workforce?**

Our system of education and training isn't broken. Far from it. It can be "tweaked," however. Policy initiatives and public-private partnerships can be designed to buttress the underlying training and re-skilling framework needed to keep Americans in IT-dependent jobs, enhancing opportunities for U.S., IT-skilled workers in present-day, new and emerging industries.

There are jobs, and more will be created (up to 22 million by 2012, according to BLS estimates). But getting Americans primed for them must be a central goal of U.S. policymakers, as well as the private sector.

And while many of these jobs do require a four-year degree, in plenty of cases, a two-year degree from one of our community or career colleges - or an apprenticeship that combines on-the-job training with some classroom instruction - can prepare workers for the high-skill, high-wage positions these industries offer. In fact, most of the new jobs created today require at least some post-secondary training, and people who have that training typically experience less unemployment and higher wages than those who don't.

Having an advanced degree helps -- don't let some of the headlines confuse you. But alternative methods increasingly have helped workers bridge the gap between formal education and the obtainment of skills needed to work with evolving technology. In this regard, professional certification is one essential element of that education and training. Further, as IT spreads throughout the economy, non-IT SMEs will increasingly need IT professionals to administer their IT requirements. Many of these professionals will be at the systems administrator or systems support levels.

Certification provides credibility, the validation of technical expertise, recognition of achievement and quality assurance. It is a reliable predictor of employee success. Having a professional certification means you passed an exam that validates your knowledge and abilities in a particular area. Having a professional

certification gives you an edge when you're applying for a job or are up for a promotion. It's proof of your abilities and adds to your resume. Many employers prefer to hire certified employees. The wide variety of certification options are designed to help IT professionals advance in specific skill sets as they plan, deploy, support and service their employers' products. Certification actually provides many tangible and intangible benefits that warrant the investment. As indicated in most research on the benefits of certification, some of the advantages that an organization can gain include:

- Increased productivity, with tasks completed quicker.
- Competitive advantage and higher level of service.
- Many believe that offering certification and training as a benefit actually helps attract and retain staff.
- Provides the ability to sell a bigger and broader solution, or the ability to implement a more valuable solution.
- Credibility for internal and external customers.

As an example, now more than ever, there is growing recognition that training and certification are key elements in improving IT security. They also realize that it's easier than ever for people to access, lose or steal this information. Anyone with a PC, a laptop, a mobile phone, or a PDA is a potential threat to security. More organizations are requiring security training (30.2 percent, up from 23.2 percent a year ago) and security experience (28 percent, up from 18.8 percent) for their new IT staff hires. In fact, past experience in IT security has surpassed self-study as the second-most effective training tool, behind only "hands-on" training. Anyone can claim to be astute in the area of IT security. But organizations today are looking for individuals with proven security experience. Obtaining industry-recognized certification is one way in which IT professionals can demonstrate their expertise."

For those being certified, certifications not only play a role in job security, but a majority feel that technical certification makes them more confident about their jobs and the work they perform.

#### **PROACTIVE, NOT PROTECTIONIST, POLICIES WILL BEST SERVE AMERICA**

Tremendous possibilities abound for Congress and policymakers to help American IT workers to adapt to and take advantage of the broader IT-centric changes moving through the global economy. These policies can further focus the American workforce so that they can meet and commandeer change, in all of its forms.

Congress and policymakers can help combat some of the challenges facing our workforce by promoting a combination of policies that increase U.S. worker productivity, capital investment and IT-related innovation.

For example, programs provided through funding by the Workforce Investment Act and the Perkins Vocational and Technical Education Act are extremely valuable and instrumental in providing our workers and students with those education and training skills necessary to compete and succeed in our knowledge and skills-based economy. Additionally, programs like the No Child Left Behind Act, which nurture a child's interest and achievement in math and science, are essential to filling future demand for America's tech workers. Promoting capital investment and R&D along with promotion of free market opportunities are also key elements of a growth agenda.

One of the most exciting proposals to emerge recently is one that provides a tax credit to workers – employed and displaced – and companies for technology education and training costs. As we've noted in this testimony, the costs of IT training and/or ongoing re-skilling often pose a substantial hurdle to employers and individuals – especially for SMEs, which are integral to U.S. job growth. Congress could help reduce these burdens by supporting programs that help U.S. workers get the training necessary to power America's technological prowess. The most productive and cost effective way to achieve that objective is to concentrate the federal investment in incentives that most effectively help citizens enter existing high-paying jobs.

Just last week, H.R. 4392, the "Technology Retraining and Investment Now Act of 2004" (TRAIN) was introduced which would provide a tax credit for information and communications technology (ICT) training program expenses paid for or incurred by the taxpayer. And we'd like to thank you, Mr. Chairman, for your support in becoming an original co-sponsor on this legislation.

This legislation is applicable to and can be used for a broad range of programs, from vocational and/or private certification courses to related college expenses. Additionally, it provides incentives to any employer who needs any type of IT trained workers, not just ICT-sector employers. CompTIA was instrumental in the development of this legislation and lends its support to the bill.

It's important to note that tax credits are an efficient and targeted way to deliver incentives to small businesses, which typically are less able to afford training costs and lack the manpower to keep up with the paperwork required to qualify for other support programs.

These and other proactive ideas abound which can help American companies and its workers stay globally competitive. That noted, we respectfully urge that policies which erect barriers to the use of world wide sourcing may actually work to harm U.S. companies and its workers. To this end, CompTIA believes these efforts should be thwarted, being contrary to the interests of overall free trade imperatives, as well as the realities of global markets today.

CompTIA supports pro-growth policies that will provide the education and retraining that allows American workers to build a better future for themselves and their families. The goals of CompTIA's programs are to provide our members and the industry as a whole with the information, tools and resources necessary to be successful in the recruitment, training, certification and retention of information technology workers worldwide.

## CONCLUSION

As one Congressman recently noted, "America must have an ever-vibrant and responsive workforce. That's the end goal here. Where this can happen, workers have the tools to remain employed and employable, and companies have the human resources to meet global consumer demand while creating jobs here at home."

With this in mind, the U.S. government can play an integral role in helping U.S. IT workers compete in the global IT workforce. Perhaps the best way to accomplish this is to promote proposals that increase U.S. worker productivity – primarily through increased opportunities to IT training and re-skilling – capital investment and IT-related innovation. In comprehensively attacking the challenge, workers and the companies that employ them can maintain their preeminence in the global economy.

More specifically, in today's technologically-driven workplace, training and retraining of our workers is essential. In addition to boosting individual and organization productivity, certifications serve to provide the employers with a competitive advantage, to improve service delivery and to ensure staff are suitably qualified, to fulfill need for specific projects and the workers with the tools they need to compete and succeed in today's workplace. A better-educated workforce that comes trained and ready to work can boost and improve their job prospects and meet the economic development demanded by our businesses.

CompTIA believes that IT skills training and certification will be one of the driving forces for our global economy. A key component of workforce development is to institute partnered-shared employment activities with value-added services to businesses. The effectiveness of these public/private partnerships and initiatives has been clearly demonstrated through the success of IT apprenticeship programs. Working together to establish strong and valuable employment and training services helps bridge the gap between job opportunities and job seekers. We must continue to strengthen these collaborations now and in the future to meet the objectives of a competitive workforce in the U.S.

CompTIA would like to thank you for the opportunity to testify today, and stands ready to help you and other Members of Congress understand further the myriad dynamics now at play in the U.S. and global economy, especially as they relate to the maintenance and upgrade of IT skills in the U.S. workforce.

# Testimony

of Roger Joyce

*Vice President of Engineering, The Bilco Company.*

*on behalf of* National Association of Manufacturers

*before the* Committee on Small Business, U.S. House of Representatives

*on the importance of a strong manufacturing workforce*

**June 2, 2004**

**Testimony of Roger Joyce  
Vice President of Engineering  
The Bilco Company  
Before the**

**HOUSE SMALL BUSINESS COMMITTEE  
JUNE 2, 2004  
CHAIRMAN DONALD MANZULLO PRESIDING**

Thank you Mr. Chairman. I am Roger Joyce, Vice President of Engineering at The Bilco Company, a family business started in 1926 by my grandfather, George W. Lyons, Sr. We are a manufacturer of architectural access products with 200 employees at facilities in West Haven, CT and Trumann, AR. We are a member of the National Association of Manufacturers – the nation’s oldest and largest industrial trade association representing 14,000 member companies and 350 member associations serving manufacturers and employees in every industrial sector in all 50 states. Approximately 10,000 of NAM’s members are small and medium-sized manufacturers, of which we are one. I am also a vice chair of CBIA, the Connecticut Business and Industry Association, one of NAM’s statewide affiliate members.

I thank the Chairman for this opportunity to discuss the importance of a strong manufacturing workforce to our country and the workforce challenges that today threaten our competitive leadership in manufacturing.

A year ago manufacturers were struggling through one of the toughest business climates in recent memory. And in order to stay competitive, they tightened their belts on things like capital equipment spending, expansion plans, and hiring and training employees.

Interestingly, this might seem somewhat counterintuitive. Oftentimes, the slow periods are the best times to up-skill workers. When facilities don’t have to function 24/7, it’s much easier and more cost-effective to take people off the line for training. And yet there are still skill shortages in manufacturing, the recent downsizing of 2 million manufacturing jobs notwithstanding.



Skills shortages remain and here's why:

First, consider the unavoidable demographics of the labor force. The Boomer generation, in every field from teachers to machinists, are starting to retire. According to one major corporate vice president, the average age of the firm's highly skilled, highly paid machinists is 58, "and there is no pipeline of replacements".

Second, the march of advanced technology is infusing old industrial sectors while creating new ones, raising skills requirements throughout the economy, and creating serious skill gaps in the labor force.

Third, firms already struggling with these two challenges confront a continuously globalizing economy where competition is intensifying on capabilities as well as cost.

Fourth, young people today do not see manufacturing as a viable career opportunity. Changing the perception of manufacturing will require aggressive marketing of manufacturing opportunities to potential new entrants to the workforce, who have the requisite math, science and literacy skills needed in today's manufacturing environments.

The recent upturn in the economy changes none of this. In fact as conditions improve more job opportunities requiring higher skill levels will be created.

All four of these conditions center on the skills of the labor force, which needs systematic upgrading and expansion. This argues for a new policy approach to workforce development, especially during a recession when hundreds of thousand are idled, many of whose basic education and skills are inadequate or at risk in modern manufacturing. One approach is to turn downtime into training time, something some of our European colleagues have done for decades.

Until now, human resource policy makers have seen recessions as storms to be weathered. The labor force policy response was mainly income and benefit maintenance with maybe some relocation assistance. That has been the status quo and we can't afford to maintain the status quo. This is not about just about fixing the unemployment system. The issues at stake will lead to a declining economy if we do not ratchet up our skills base now and if we confine ourselves with antiquated systems.

We need to make the public workforce system more "employer-friendly" and supporting the 1998 Workforce Investment Act will help us more effectively match labor market demands with labor market supply. The current Administration has made great strides in creating a "dual-customer" system, but we need to keep that focus going because too few employers know that the system even exists. Or when they do know about it, it still falls short of meeting their needs for skilled and job-ready workers. As effective as Workforce Investment Act has been, we are disappointed that funding has been reduced 10% and urge review of this critical area.

One strategy NAM and the US Chamber have successfully employed in partnership with private foundations and the US Department of Labor has been to work through their employer intermediary organizations. In particular, business and trade associations are highly effective organizations for small businesses, allowing their voices to be heard and providing opportunities for them to participate in the employment and training system, that often are only available to large corporations.

One example of this is the 3-year \$2.2million U.S. DOL demonstration grant for incumbent and dislocated workers, which CBIA received in 2002 to assist manufacturers with job training. Despite the recession and loss of manufacturing jobs in Connecticut, CBIA, working with both the community colleges and private contractors, was able to provide training assistance to **23 companies, train 1,051 employees who took 126 courses in approximately 60 different training areas**. Courses in lean manufacturing, Six Sigma, supervisory training and teamwork, blue print reading, CNC machining, GDC, and laser and fuel cell technology, as well as English as a Second Language were

made available to employees through this federal grant program. Participants in this program were better prepared for their current jobs and able to move more effectively into higher level positions.

Unfortunately, it is my understanding that this demonstration grant program has been eliminated. As a result, after June 30, when this grant is completed, CBIA will no longer be able to assist manufacturers in a way that worked so effectively for them. We feel that such programs should be restored and, indeed, expanded.

We need to support our community college system – the President has made it clear that he does. Community colleges are the backbone of the worker education and training system and we need to increase our investment in communities by supporting their growth and connection to their local employers. Gateway Community College serves the greater New Haven business community by developing programs that address our specific requirements – even employer by employer if necessary.

We also need to ensure that our citizens have the financial aid they need to get access to the post-secondary education that will give them good jobs with family-supporting wages – we need action on the Higher Education Act to ensure that access to funds is streamlined and available when needed. And we certainly need to strengthen the ties between higher education and businesses' workforce needs.

The Bilco Company is a small manufacturer, but we compete in the world marketplace. Ten years ago we sold our products in five countries. Today, we sell in 65 countries. Our workforce must be at least as skilled as our competitors in other countries. But we are losing this battle. The Department of Labor estimates that the skills shortage I have described will affect ten million workers by the year 2010. We actively support the Connecticut State Scholars pilot program in New Haven. This program connects the school district with business to encourage 8<sup>th</sup> graders to choose a more rigorous curriculum in high school. Upon completion of this program, they are much better

prepared to enter the workforce or pursue higher education opportunities. This means they are better able to compete with their peers around the world.

I encourage the Committee to support the initiatives I have presented so that manufacturers like myself are in a position to compete, to grow and to create new jobs.

Thank you.

## **Education, Training and a Competitive High Tech Workforce**

**Testimony to  
The House Committee on Small Business  
June 2, 2004**

Ernst Volgenau, Chairman & CEO of SRA  
International, Inc.  
Chairman ITAA Workforce and Education  
Committee

Representing the Information Technology  
Association of America



**Introduction**

Good afternoon Chairman Manzullo and other members of the House Committee on Small Business. I am Ernst Volgenau, Chairman and CEO, SRA International, Inc. Today I am representing the Information Technology Association of America (ITAA). ITAA is the leading trade association for the information technology industry having 380 members, and SRA International is one of them. ITAA member companies represent a broad spectrum of industry sectors: computer software and services, e-commerce, enterprise systems, broadband, communications, and other firms. ITAA represents companies of all sizes, from large multi-billion dollar enterprises to small entrepreneurial firms.

My company, SRA International, is proud to actively participate in ITAA workforce programs. Like many other firms, our future depends on the capabilities of our people. I started SRA to help solve society's problems using technology. Today, SRA has revenue of about 600M and 3,300 employees. We have been on the *Fortune* magazine list of 100 best places to work for five years in a row. SRA provides information technology services and solutions including strategic consulting and system integration, as well as outsourcing, to federal and commercial clients, health care, and public health. We realize the importance of educated and skilled workers.

We very much appreciate the Committee's support for worker training which is essential for the economic health and vitality of our country. As we all know, the United States is now an information economy. The increasing emphasis on information technology has produced fundamental changes in the work performed by the average

American as well as the skill sets needed to get the job done. For example, in 1950, when technology was much more limited and global commerce roles substantially smaller, our manufacturing base was growing but 60% of the American workforce was considered unskilled. As the U.S. shifted from a domestic industrial economy to a global information economy, our workforce changed too. In 1997, at the height of the technology boom, the percentage of unskilled workers in America was a mere 15%.<sup>1</sup>

While we can look backward to better understand how our workforce has changed over time, we must also chart our future course. What will it take for the U.S. to remain the world's leading information economy, particularly in an environment characterized by instantaneous communications, open markets, and the growing aspirations of nations to compete for leadership in high technology products and services?

For many years, ITAA has seen the global race become more competitive, and we have responded to the challenge by leading industry efforts to better understand IT workforce trends and directions. Since the 1980s, ITAA has called for improvements to American math and science education, including a better popular image for computer professionals and greater representation in the IT workforce of women, minorities and the disabled. The ITAA annual Workforce Convocation has become the premiere venue for understanding the nexus of IT workforce policy, public/private partnerships, and education and training.

Beginning in the 1960s, the IT industry has seen consecutive waves of innovation that revolutionized conventional business thinking and left behind those unwilling or unable to react. American IT workers were responsible for producing these technology

---

<sup>1</sup> Susan Sclafani, Office of Vocational and Adult Education, U.S. Department of Education, presentation to the ITAA Workforce Convocation, May 2004

changes. In the last 40 years, we have gone from large computers housed in gigantic data centers to devices with far more processing power and storage capacity that can fit in your pocket.

With this kind of power to change business, the financial stakes are enormous. Global spending on information and communications technology is expected to exceed \$3.7 trillion by 2007, growing at a compound annual rate of 8.5%.<sup>2</sup> Whether the U.S. share of the world market expands or contracts will be in large part determined by the availability of appropriately trained and skilled technical people.

To be competitive in business, IT companies must have access to creative people who can harness IT value for the benefit of customers. To be competitive nationally, the U.S. must continue to produce the high tech patents, processes, copyrights, innovations and insights that have made this country the global technology leader of the modern world. Whether one views technology leadership from the perspective of business owners or as the first order business of the American people, the end result is the same: Resting on the laurels of the last 40 years will place at serious risk our economic prosperity in the next 40 years.

Educating, training and retraining American high tech workers for an increasingly competitive world is the only path forward—whether to sustain the information economy as we know it today or to prepare for whatever comes next.

#### **Recent Challenges Facing the U.S. IT Workforce**

The IT industry is not recession proof. According to a recently published report by ITAA and Global Insight, the U.S. economy has lost about 400,000 software and

---

<sup>2</sup> Economic forecast, Global Insight, 2004



services jobs from 2000 through 2003.<sup>3</sup> Similar trends were noted by Challenger, Gray and Christmas which found that in 2001 more than 300,000 telecommunications workers and 170,000 computer workers lost jobs.<sup>4</sup>

The economic picture has begun to brighten for both IT and non-IT companies. For the past eight months the economy has grown at a rate that has exceeded expectations: 1.1 million jobs have been added, and in 44 of the 50 states the unemployment rate has fallen.<sup>5</sup> Across the IT industry, because of federal policies that encourage capital spending, we are seeing promising signs of growth. For example, on May 17, it was reported that next year, Intel, plans to spend 20% more on tools and chip making facilities.<sup>6</sup>

While the news from Intel seems to signal a positive growth picture for the entire industry, as managers of companies, we also face significant workforce challenges. American companies – IT and otherwise – face stronger, more innovative competition than ever before. In an effort to cut costs while continuing to deliver timely, high quality goods and services, companies have turned to global sourcing, or, “offshore outsourcing” to perform mundane tasks, such as data entry and processing insurance claims. Concurrently, the number of sophisticated IT tasks outsourced is also growing.

American workers frequently see media reports suggesting that their jobs are going overseas. However, global sourcing may actually boost the US economy and create more domestic jobs. The ITAA/Global Insight study concluded that global sourcing contributes significantly to real Gross Domestic Product in the United States,

---

<sup>3</sup> The Impact of Offshore IT Software and Services Outsourcing on the U.S. Economy and the IT Industry, ITAA/Global Insight, 2004

<sup>4</sup> Jennifer Sabatino, “Report: Job cuts in 2001 reach nearly 2 million,” Computerworld, January 03, 2002

<sup>5</sup> White House Office of Communications, May 18, 2004

and added \$33.6 billion in 2003. By 2008, the real GDP is expected to be \$124.2 billion higher than it would be in an environment in which offshore IT software and services outsourcing did not occur. Practically speaking, this increase in the GDP, together with a domestic economy expected to perform at a higher level, are predicted to contribute to a *net job gain* of over 300,000 new jobs across the economy.

At the same time, offshore outsourcing does not mean the US IT industry is going away. We are the best in the world and while we must adjust to the new competitive reality, I have little doubt that the US IT industry and its millions of talented workers will remain pre-eminent. As evidence of this prowess, the United States continues to run a large trade surplus in services each year. The Global Insight study and many others note that the software and IT services that we import annually is only about 2% of the U.S. total. The bottom line: open markets create opportunity for US IT workers and will continue to do so in the future.

#### **Competition is Key to Success in Information Economy**

This econometric forecast does not suggest that we can merely assume a bright future. America's advantage lies not with workers' abilities to perform perfunctory tasks, but to have the skills and training. We need workers who can meet specific domestic employment needs in a way that cannot be addressed by foreign workers, and our workers must have intellectual and skill advantage compared to those in other countries. Worker by worker, America must become more competitive.

Despite the move to source certain work overseas, the U.S. will remain very much a high tech economy. The Bureau of Labor Statistics recently predicted that computer

---

<sup>6</sup> Daniel Sorid, Reuters, May 17, 2004

systems analysts, database administrators, and computer scientists, through 2012, are among the fastest growing occupations.<sup>7</sup> This is because organizations must continue to adopt increasingly sophisticated technologies. It is industry's job to work with the government, to craft the policies that ensure America has the skilled workers to meet the changing demands of the information economy.

To put this in perspective, let me share some disturbing statistics. Since much of the outsourcing debate tends to focus on India and China, I shall use them as examples. Since 1990, the percentage of Indian students enrolled in post-secondary programs has risen by 92%; the number in China has risen by 258%. China has set a goal of enrolling 15% of its young adults in postsecondary education by 2005. If they succeed they will have the largest postsecondary enrollment in the world.<sup>8</sup>

In America, the number of students enrolled in post-secondary programs has increased by only 15% since 1990. Of these students, 45% who enter two-year programs do not return for the second year, while 26% of those entered in a four-year program do not continue their studies after their first year.<sup>9</sup>

### **Education and Training**

To ensure economic and job security in America, the only real answer in the long term is to improve our overall national competitiveness in large part through lifelong education and training at all levels. A new emphasis must be placed not only on learning, *per se*, but learning to learn. We cannot simply expect that innovation and creativity

---

<sup>7</sup> U.S. Bureau of Labor Statistics, Occupational Outlook Handbook, 2004-2005

<sup>8</sup> Susan Sclafani, Office of Vocational and Adult Education, U.S. Department of Education, presentation to the ITAA Workforce Convocation, May 2004

produced at the very top of our employment pyramid will carry the day. It is unlikely that the economic fruits of a few— while carrying significant benefits — will be enough to nourish the needs of the many.

We need to improve the number of students entering math, science and engineering programs. The good news is that the education and training infrastructure not only exists to provide this instruction, but is vibrant and robust. The U.S. has approximately 3700 institutions of higher learning, serving 15.6 million students and, in 2000, awarding 2.3 million degrees. Of the degrees granted, approximately 25% were in science and engineering fields.<sup>10</sup>

At the four-year University level, we must begin to place greater emphasis on computer science and other technical fields. A graph from the National Science Foundation (Appendix I) shows sharp upward trajectories in the number of foreign graduate students enrolled in math, science and engineering in this country. At the same time, there are sharp declines in these areas among white Americans and only slight increases in black, Hispanic, and other American minorities who choose these fields of study.

For those who do not wish to pursue a four-year degree, the fastest-growing method of attaining higher education is community colleges. These institutions can be a bridge for students who want to attend four-year colleges, or, simply want to improve technical skills in a particular area. Community colleges are a critical link in our education chain. Currently, there are over 1,100 community colleges nationwide serving over 10 million students. Annually, community colleges award in excess of 450,000

---

<sup>9</sup> Ibid.

<sup>10</sup> NSF, Science and Engineering Indicators 2004, Chapter 2, The Structure of U.S. Higher Education

associate degrees. Most interestingly 95% of businesses and organizations that use community colleges for workforce training recommend these institutions.<sup>11</sup>

As the needs of employers change to meet new economic and consumer demands, an increasing number of students are also turning to private technical colleges, also referred to as “career” colleges. Of the approximately 10,000 postsecondary institutions in the U.S., 46% are private technical colleges. These schools provide flexible, hands on, technical training programs that serve nearly 1.3 million students, and concurrently help satisfy specific employment needs of their communities.

The Internet has also become an important source of distance learning and lifelong education. Online instruction, also known as e-learning, offers an important alternative to students unable to spend four years on a college campus, particularly older individuals with family and work responsibilities. Online education is also an important alternative channel for those in remote or otherwise difficult to serve geographic areas.

A Department of Education survey found almost 90% of public two- and four-year universities offer distance learning courses. That survey also noted that during the period of 1997 to 2001, enrollments in distance learning courses doubled from 1.3 to 2.9 million and the number of courses also doubled, from 47,500 to 118,000. Ironically, the survey also found fewer than 10% of students in science and engineering disciplines were registered for distance learning courses.<sup>12</sup>

Certification programs have proven beneficial to employees and employers alike as a means of base-lining skills and knowledge in specific technology areas. Certification

---

<sup>11</sup> National Association of Community Colleges, National Profile of Community Colleges: Trends and Statistics (2000)

<sup>12</sup> NSF, Science and Engineering Indicators 2004, Chapter 2, The Structure of U.S. Higher Education

training has become a focus for e-learning providers, community colleges and private technical schools. Certification gives employers an objective criterion for assessing employee development and can be one of several important differentiators in the hiring decision.

As far as worker training is concerned, it is important for workers and policymakers to understand from the beginning that education is a lifetime process.

ITAA was recently invited by the Center for National Software Studies to convene a workshop examining workforce issues impacting the software workforce. For this workshop, we invited top employers from ITAA's membership to discuss what hiring managers are looking for in today's IT worker. What we learned from this workshop was no surprise. Employers shared their need for workers with technical diversity as well as strong employability skills such as good communication skills, business acumen, and project management abilities.

Today, a well qualified employee must have technical proficiency *and* business knowledge. In today's IT job market, each worker needs to understand not only the technology they are producing, but also the business model. They need to have some understanding of broad issues such as data security, cyber security, and customer service.

#### **Making Assignments: Roles for Industry, Academia and Government**

The demographic census of the U.S. shows that education and training are the keys to competitiveness in a tight economy. The U.S. workforce grew 54% between 1980 and 2000; during the next 20 years, growth in workers between the ages of 25 and

54 will be just 3%.<sup>13</sup> Any current excess in availability of IT workers will quickly dissipate as baby boomers begin to retire. The likelihood that developing world countries will cultivate sufficient talent to do more than backfill unavoidable U.S. IT shortages seems remote.

College undergraduate students in computer science and related fields must be encouraged to pursue and complete advanced science and engineering programs, and U.S. IT companies must make more opportunities available for newcomers to gain meaningful work experiences. IT companies must also help mature workers add skills, retool abilities and apply domain knowledge. Solutions include public/private partnerships that facilitate training opportunities; clarify the technical requirements of hiring companies; improve the linkage between academic curricula and marketplace skill demands; create opportunities for mentoring, job shadowing and other “real world” experience as a supplement to classroom coursework; and establish a better dialogue between community-based agencies and employers on the types of training, background and experience to be truly competitive in the local job market.

We must also insure that our children have the math and science foundation to compete for tomorrow's high technology jobs. Industry and government both have roles to play in helping people hone their competitive edge. The U.S. K-12 educational system must better equip more students to pursue IT-related undergraduate and graduate degrees. Only six of ten high school students advance to Algebra II and only one in ten high

---

<sup>13</sup> Paul Kaihla, The Coming Job Boom, Business 2.0, September 2003.

school students take trigonometry or calculus. Among those taking college entrance exams, only 2% of females and 9% of males are planning to major in computer science.<sup>14</sup>

Kids begin to view math and science education as too difficult, too boring, or too irrelevant as early as the elementary school years. We need to work through public/private partnerships and other means to assure that entire populations of children are not crippled intellectually in their efforts to compete globally. With diversity continuing to be a challenge in the IT industry, more attention needs to be paid to the delivery of math and science education to African American, Hispanic and Native American children.<sup>15</sup>

Industry must also work to assure that first time job seekers, as well as those in career transition, have adequate entry points into the IT industry. This means better definition and communication of the experience and training required for entry level jobs. The aging workforce makes it necessary to better understand the under representation of women and minorities in the IT industry.

### **Recommendations**

If we as leaders in industry and government are to achieve this goal, there are several commonsense policy initiatives that I would encourage the Congress to support.

ITAA has been active in a coalition of other industry associations and companies supporting increased funding for the Math/Science Partnership program authorized in No Child Left Behind. Improving the math and science skills of our students is essential to maintaining our technological leadership in our global economy. Demand for scientists

---

<sup>14</sup> C.B. Cleweel & P.B. Campbell, "Taking Stock: Where We've been, Where We Are, Where We're Going," *Journal of Woman and Minorities in Science and Engineering*, Volume 8, pp. 255-284, 2002



and engineers will grow as the economy expands and as the current population of Baby-Boomers reaches retirement age. The need for a technologically literate population is essential for our economy and our national security.

We urge Congress to reorient the H1-B training fund. Many of the programs in existence today were geared toward an economy that simply does not exist anymore. These programs were designed to help workers during times of economic downturn but are outdated for the high tech challenges of today. As Congress reconsiders the reauthorization of the Workforce Investment Act (WIA) an effort should be made to redirect funds to retrain workers in “high growth” industries such as IT. An effort could also be made to better educate Workforce Investment Boards (WIB) on the needs of the IT sector relative to the impact of offshore outsourcing; and create partnerships with the business community.

ITAA supports increased funding for the role of community colleges in workforce development. Recently, the Administration proposed a \$250 million program to help community colleges form partnerships with local businesses. We believe this is a major step in the right direction toward ensuring that the skill-sets of our workers match the jobs of the 21st century.

The federal government can also play a large role in fully funding research and development. Because high tech research is also high risk, industry cannot go it alone. Many companies have reduced R&D budgets as part of downsizing operations. The federal government can help address this situation and assure that R&D investments continue by creating a permanent R&D tax credit, by increasing Federal funding of IT for R&D across the board, and by funding the Cyber Security R&D Act.

---

<sup>15</sup> ITAA, Report of the ITAA Blue Ribbon Panel on IT Diversity, May, 2003

One solution that has been put forth is an increased investment in technology education and infrastructure at our nation's historically black colleges, tribal colleges, and other minority serving institutions which traditionally lack the resources needed to provide students with the most advanced systems. This bill has been approved by the Senate and is currently before the House Science Committee and would go a long way toward preparing students at these institutions to fill the high tech jobs of the future.

Other important policy steps our nation can take to sharpen its competitive edge include:

- Extending other training and assistance to workers in the services industries. In particular, we need to be sure that the federal government is doing enough to assist mid career individuals who, through no fault of their own, have lost jobs in response to market pressures. We help the highest-level professionals gain grants and other educational assistance and those most economically disadvantaged join or rejoin the workforce. We must not lose sight of those in the middle.
- Controlling health care costs so that employers can afford to keep jobs in this country. Companies and employees should be focused on getting the job done, not keeping a lid on health care expenses. Too often, the rising cost of health care enters into the hiring decision. Health care should be an affordable employment benefit, not a major factor in a company's strategic staffing calculations. Health care costs are especially important for companies in the IT services industry where labor costs are critically important to competitiveness.

- Striking an appropriate balance on the use of stock options. We have seen information technology go through repeated waves of innovation, market introduction and acceptance, integration and maturation. Entrepreneurs are critical to this hugely successful process. Small businesses usually start with little capital; their principal way of rewarding capable people is through stock options. ITAA supports the approach put forward by Senator Reid that would balance the need for responsible corporate governance with the requirement of fast growing companies to provide stock options as an employee recruitment and retention incentive.

### **Conclusions**

The U.S. spends almost \$1 trillion on information and communications technologies annually. That spending volume fails to account for the productivity benefits and additional revenue generated by customers applying information technology to their business operations. Clearly, the significance of IT to the U.S. economy is enormous and the nation's continued leadership is critical to future US economic success. Information technology is an important industry in its own right, but it is also a major enabler of innovation and business process transformation in other industries. As society strives to better understand and nurture the rudiments of global competitiveness, the contribution of IT to business performance becomes a key element in the equation.

Beyond our economic security, IT is critical to national defense. Information technology is a bulwark in the nation's fight against world terrorism abroad and a defense shield against attacks here at home. America's future depends on the availability of a

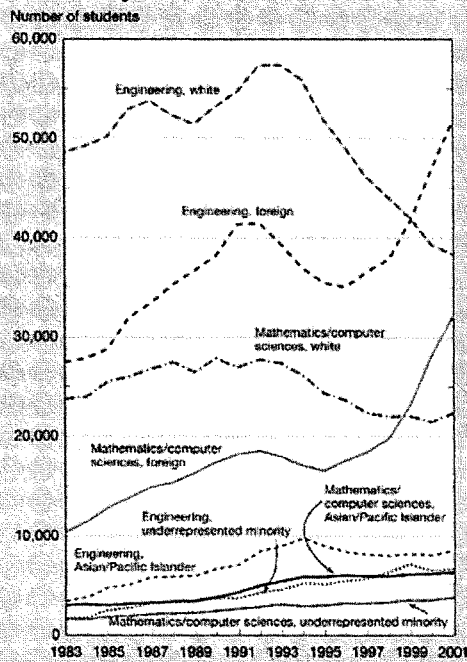
skilled, trained, and motivated IT workforce. In this testimony, we have discussed how a changing global marketplace has forced all workers to adapt to a new competitive reality. In a global marketplace, no one can stand in place; no one can rest on the laurels of past education, training, experience. In a global marketplace, the only clear, competitive path is forward. And that means education and training as lifelong employment strategies.

Employees must accept the challenge of the future by seeking new opportunities for education and training. They must push themselves to better understand the nature of the business they serve, and how their IT skills can be applied to solve real world problems and generate new value. They must understand the technology trends and move as the nature of technology evolves. Most of all, they must take ownership of their careers.

Industry and government have excellent reasons to assure that the avenues for education, training and retraining are always open to those who seek them. America's best and brightest must continue to see a future in IT. Industry, government, and academia must work together to make it happen.

## Appendix One

**Figure 2-6**  
**Graduate enrollment in mathematics/computer**  
**sciences and engineering, by citizenship and**  
**race/ethnicity: 1983-2001**



NOTES: Foreign citizen includes temporary residents only.  
 Race/ethnicity groups include U.S. citizens and permanent residents.  
 Underrepresented minority includes black, Hispanic, and American Indian/Alaskan Native.

SOURCE: National Science Foundation, Division of Science Resources Statistics, WebCASPAR database system, <http://caspar.nsf.gov>. See appendix table 2-12.

Science & Engineering Indicators - 2004

**About ITAA**

With 380 member companies, the Information Technology Association of America (ITAA) is the leading trade association serving the information technology industry. Founded as the Association of Data Processing Service Organizations (ADAPSO) in 1961, ITAA has expanded its constituency over the years to include companies in every facet of the IT industry, including computer hardware, software, telecommunications, Internet, e-business, e-education, outsourcing, computer services and more.

ITAA seeks to foster an environment that is conducive to the health, prosperity and competitive nature of the information technology industry and to help its members succeed in delivering the benefits of IT to their customers. The Association's industry development programs include advocacy on legislative and regulatory issues, studies and statistics, domestic and international market development and industry promotion. ITAA also provides extensive opportunities for business development, particularly for firms seeking to build market credibility, brand awareness, customer access and strategic partnerships.

The Association represents the IT industry's interests in issues such as government procurement, telecommunications policy, information security, workforce development, intellectual property protection, and accounting, finance and taxation. ITAA is the U.S. trade association member of and secretariat for the World Information Technology and Services Alliance (WITSA).

ITAA members belong to one or more of four divisions: Enterprise Solutions, IT Services, Internet Commerce and Communications, and Software. In addition to regular division board and committee meetings, the Association conducts dozens of webcasts, focused seminars and topical conferences every year.

ITAA is the nation's leading trade association for the government IT marketplace. Over 150 leading federal contractors participate in the Association's federal CIO survey, monthly dinner series, procurement policy development, white papers, planning retreats, state and local events and more.



Information Technology Association of America  
1401 Wilson Blvd., Ste. 1100, Arlington, VA 22209  
703-522-5055  
<http://www.ita.org>

**Committee on Small Business  
U.S. House of Representatives  
June 2, 2004**

**Testimony of:  
Matthew B. Coffey, President  
National Tooling and Machining Association**

Mr. Chairman and members of the Committee:

I thank you for the invitation to participate in today's hearing, on the critical subject of training the technology workforce of the future. As the President of the National Tooling and Machining Association these last nineteen years, I have seen the incredible increase in the requirements for learning for all workers in high technology manufacturing, particularly among the 1700 companies that belong to NTMA.

Our industry, the tool, die, precision machining, special machine building and fabrication industry, requires highly skilled craftsmen and women. The companies in our industry are small, averaging 30 employees. The dramatic increase in global competition, introduction of new technology and increased quality required have all placed demands on employees in this industry to constantly upgrade their skills on the job and off. According to the Bureau of Labor Statistics, companies like these are the primary generator of new jobs in our economy when it is performing.

The owners of the companies in this industry have always known that their competitive advantage depends on the quality of human resources in their companies. It is the level of training and the creativity of the employee that makes or breaks the company in the present competitive environment. One of the two reasons the National Tooling and Machining Association was founded was to provide a training infrastructure for the industry. We have been doing that for 61 years.

Studies have shown that skilled manufacturing positions have a large multiplier effect on creating jobs for support services. If any industry should be helped to train, it is this industry because of its job generation power for the economy. We find that over 50% of applicants for skilled positions are rejected because of deficient background. Something must be done to improve this hit ratio either by changing the larger school preparation system or through targeted programs that can occur more quickly.

For twenty years the National Tooling and Machining Association ran a Department of Labor grant program that provided \$1,000,000 a year for entry-level training of the economically disadvantaged. That program provided over 500 new employees to our industry each year. The program was terminated by the Clinton Administration and all the funding was block-granted to the states. Today, none of the states invest any of that block-grant money into high-tech training

for the disadvantaged in our industry. Perhaps it is time to re-institute national training programs in coordination with industry trade groups to make sure high skill technical training is getting done.

As a result of the re-direction of the block-grant money, the industry has had to self-fund entry-level training in addition to the upgrade training of its incumbent workforce. This is a very expensive proposition for a small and medium sized high-tech company. It is reliably estimated to cost over \$200,000 to train an individual to full proficiency as a mold maker, or die maker. The training takes over five years to complete and is a heavy burden for the company to carry, not only in direct and indirect expense, but also in lost productivity.

This is not a burden our competitors face as most technical training is encouraged and paid for by foreign governments. It adds costs that must be amortized in the prices charged for goods and places our small and medium sized members at an even greater competitive disadvantage.

We have for the last several years been looking for solutions and have had some success.

In 1993 with a Department of Labor grant for \$300,000, we created the skill standards for machinists. The industry has since invested over \$7,500,000 in building the National Institute of Metalworking Skills and developed over 54 skill standards through the cooperation of six metalworking associations.

We are now seeing the fruits of that investment by making individuals productive more quickly and shortening the training time for some skills from five years to as short as a year or two to reach full competency. In addition, certificate holders under the standards must continually upgrade their skills and be retested with updated tests every three years. Many community colleges are using the NIMS standards as a base for their machining technology curricula.

We have been exploring ways to achieve college credit and recognition for what have been traditionally thought of as trade skills. Our work with community colleges, and even some four-year institutions, is leading to college credit for individuals as we attempt to get rid of the stigma associated with working in manufacturing. High skill, high pay jobs deserve academic recognition as important contributors to the society. A pilot program is in place to integrate the NIMS standards into traditional apprenticeships for eight key occupations.

We have also been trying to find ways to bring education and training to the workplace through the use of electronic learning. We have been supporters of Tooling University -- an interactive on-line learning service. We have worked with the Council of Adult and Experiential Learning in Chicago to put together an application to the National Science Foundation for funding of an industry on-line university in cooperation with community college partners.

We have recognized particularly in the last three years of economic difficulty that the traditional classroom systems of training are failing and we must build more capability in the non-traditional system. This is particularly true for high technology upgrading of presently employed workers. Today's worker is constantly challenged to keep up with hardware and software that



make them more productive but require a higher level of understanding. That learning occurs best on the job but is seldom available on the job in a small and medium-sized company. The federal government is spending billions of dollars on training but that money is seldom reaching the small and medium sized business. Most of the money is allocated through the state block-grant programs and is used to attract multinational manufacturers to the state, not to grow the competency of the incumbent workforce. The other distribution channel funded by the federal government is through the community college and four year colleges. Seldom does that money reach the person in need.

If America wants to have a high skill workforce, the federal government needs to consider other investments in training where small and medium sized companies are concerned. It should consider re-instituting the block-grant programs for targeted occupations. It could use tax credits to encourage investments by companies in training their incumbent workforce. Tax credits for as little as a few thousand dollars of the total expense per employee would stimulate a major up tick in the training being conducted.

In addition, this committee could recommend to its colleagues in the Commerce Committees and Education Committees that there needs to be more coordination between governmental programs designed to assist small and medium sized businesses. For instance, the Manufacturing Extension Partnership or the Trade Adjustment Assistance programs for firms and individuals should be coordinated with the Department of Labor, Department of Commerce and Department of Education programs to get the training and education to the place where it is needed when it is needed.

Now that economic prospects are improving somewhat in the manufacturing economy, there should be an increase in the demand for manufacturing workers. This immediately creates a crisis because over the economic hard times little training has been going on. We need the ability to ramp up programs to support industry in the U.S. so it can respond in a timely fashion to what could develop into a crisis adding to our lack of competitiveness.

This present situation makes these hearings of the Committee on Small Business highly relevant and timely. If the Committee can adopt the recommendations and forward them to the appropriate committees while sensitizing the Small Business Administration to the need for responsiveness and coordination on their part, you will have provided a much needed boost to a beaten down small and medium sized manufacturing infrastructure.

Thank you, Mr. Chairman for the time before the Committee on Small Business. I will be happy to respond to your questions.



# Apprenticeship

►Pilots Needed: Overview

►FAQs on Apprenticeship Program

►Draft Letter of Intent (.doc)

►Validation Panel Members Needed

►Recommended Competencies

## The National Competency Based Apprenticeship System

NIMS has entered into an agreement with the United States Department of Labor to develop a competency based apprenticeship system for the nation's metalworking industry. The new system is intended to fundamentally change and dramatically improve the way that skilled workers are training in American manufacturing. Key to the new system is the integration of NIMS standards-based credentialing assessments with traditional on-the-job learning.

### Maximum Flexibility

NIMS envisions maximum flexibility for trainees and employers alike. The system will reward trainees in enabling them to advance at their own pace and open career ladders throughout the metalworking industry. By integrating the NIMS credentials as performance measures, it is projected that trainees may have multiple entry points and enter training with advanced standing based on earned credentials. The use of NIMS credentials may also enable trainees to move from one apprenticeable occupation to another within metalworking.

The project builds on the 24 sets of NIMS standards and credentials and will enable the employers to apply the NIMS credential as milestones within their apprenticeship training. Employers will be able to customize training to meet their own needs while maintaining the national integrity of apprenticeship training.

### Competency-based Performance Measures

Employers will be able to effectively monitor and measure progress and to reward individual initiative. The project envisions the use of attained credentials in lieu of a rigid set of hours, the use of credentials as entry requirements or even as advanced standing and the development of articulation agreements with institutions of higher education. NIMS intends that all apprentices be granted college credit for earned credentials.

The project is structured in five phases:

1. An Expert Panel will examine the apprenticeable occupations and define a competency lattice that will include the required competencies and match those against the NIMS standards and the NIMS credentials. The Panel will describe career ladders for a twenty-first century metalworking apprenticeship system. The Panel will be comprised of at least eight firms drawn broadly from the industry.

**The Expert Panel's initial work was completed on January 30 in defining the competencies required for specific apprenticeships. The work is being validated through industry meetings in February and March.**

2. Based on the work of the Expert Panel, a Curriculum Committee will determine appropriate curriculum guides to be used in delivering training. The Committee will be drawn broadly from industry and will represent at least eight firms and two training institutions.
3. The system will be piloted in selected firms. It is intended to conduct a minimum of six pilots and to assure representation from each metalworking major industry sector.  
►Pilots Program Overview
4. An Implementation Guide will be developed based on the work of the Expert Panel and the Committee and a review of best practices both within metalworking and in other occupations.



5. Training to implement the system will be conducted for the staff of the Department of Labor and the metalworking associations.

### **NTMF/NSF Distance Learning Project Summary**

---

A consortium, made up of Monroe Community College (NY), Gateway Community College (AZ), Sinclair Community College (OH), the National Tooling and Machining Association (NTMA) and the Council for Adult and Experiential Learning (CAEL), has submitted a proposal to the National Science Foundation entitled *E-Learning in Manufacturing (ELM)*. This collaborative project will achieve two objectives:

- 1) To develop a series of high quality, online modular courses in *core and specialized areas in manufacturing technology* to be accessed by colleges across the nation, and
- 2) To provide *professional development for college faculty* on how to best integrate the modules into their Manufacturing Technology programs.

The online courses will be converted from some of the best on-the-ground courses and utilize industry experts from around the nation. They will be in modular format and combine the best features of instructor-led and computer-based training. The courses will be based on industry standards developed through the National Institute for Metalworking Skills (NIMS)<sup>1</sup>.

Primary audiences to benefit from these activities are: 1) Men and women presently working in manufacturing or just entering manufacturing fields, and 2) Community colleges that will be able access the high quality online modules related to Manufacturing Technology, and receive professional development training for their faculty.

This series of online courses will be accessed by individuals at home, the workplace or at their local community college. The courses will be disseminated to community colleges across the nation and promoted on the NTMA Learning Portal that will function as a one-stop national resource center for those interested in precision manufacturing fields.

Distance education options within these fields are important for the adult learner, employers, and educational institutions. Adults are demanding more choices and flexibility so they can learn on their own time, at their own pace, cutting down on travel time. While many colleges are interested in providing on-line learning, few offer these options as most lack the resources and expertise. Employers are also demanding ways to efficiently provide industry-driven training to employees that does not require a significant amount of time off the job.

Offering high quality distance education courses in manufacturing technology- courses that are aligned with industry standards, endorsed by national trade associations, and linked to respected academic credentials- will enhance the professional image of these careers and provide a competitive advantage to small manufacturing companies that are vital to the economic health of our nation.

---

<sup>1</sup> All participating community colleges offer Manufacturing Technology certificates and degrees that are aligned with the NIMS standards and are sponsored by a local NTMA chapter made up of area employers.

**E-Learning in Manufacturing Project Description****Rationale**

The skills shortage is both a problem of supply and demand. In the New Economy, companies have increased worker skill requirements due to investments in new technologies and global competition. Today, managers are expecting workers to have appropriate credentials and to be well versed in computer controlled production equipment, high velocity machining, software systems for planning, managing and monitoring business activities and quality control. At the same time, many men and women are not aware of the careers and high-paying jobs that exist in manufacturing and thus do not pursue these paths. Working adults in the industry struggle to find the time to go back to school to upgrade their skills.

Educational providers must reinvent themselves in order to meet the needs of adults and business. Colleges must efficiently deliver high quality instruction that is based on industry's needs and make it accessible "any time, any where."

**Project Goals**

The E-Learning in Manufacturing Network (ELM) is comprised of the National Tooling and Machining Association (NTMA), the Council for Adult and Experiential Learning (CAEL) and two premier community colleges, Monroe Community College (Rochester, NY,) and Macomb Community College (Detroit, MI). The ELM Network was formed to meet the skill needs of business by developing curriculum for the manufacturing technology Associate degree programs. The curriculum will be a unique blend of online learning and hands-on lab work that reinforces the web-based distance learning. The

Network, with the support of NSF funds, expects to achieve five major milestones over the next three years:

1. **Design** a blended learning, pedagogical approach for Manufacturing Technology Associate degrees and certificates that incorporate the use of e-Learning content with hands-on, lab work completion options.
2. **Integrate** national metalworking skill standards into the content of the curriculum.
3. **Deliver** professional development for manufacturing technology faculty on facilitating a virtual classroom and effective strategies for integrating online content with the classroom.
4. **Increase** enrollment and delivery flexibility in college-credit manufacturing technology programs by offering e-Learning options in and outside of the classroom.
5. **Validate** and produce skilled individuals for manufacturing companies demanding highly qualified workers in an increasingly competitive environment.

<b>Project Objectives</b>
---------------------------

1. **Design and deliver up to 16 online manufacturing technology courses in three years, using a flexible, modular, content-driven format.**

Measurable Outcome: Sixteen courses will be developed in the three-year project. The content of two courses will be piloted in the first year.

2. **Create hands-on lab components for the online content, with flexible completion options, which will reinforce the online learning of students.**

Measurable Outcome: Lab exercises for all the distance learning modules will be developed. Mechanisms will be in place to ensure that all distance learning students are able to complete lab exercises in a flexible manner.

3. **Develop an online facilitation guide and certification process for instructors to use when accessing the modular course content.**

Measurable Outcome: A template for the facilitation guide and certification process will be developed in Year I and faculty from core institutions will pilot the certification process. Faculty from five additional institutions will be certified during year two. An additional five faculty will be certified during year three.

**4. Establish a 24 hour/7 days learning portal that becomes a national, central dissemination point for authorized users to promote and access the curriculum.**

Measurable Outcome: Web site developed and modular course content is available for access and download by community colleges and their students on a 24/7 server supported by the NTMA by August 1, 2002.

**5. Align the curriculum and manufacturing educational programs with nationally recognized NIMS standards.**

Measurable Outcome: The content for all the 16 courses will be based upon the NIMS standards. The NIMS credentialing process will be integrated into the manufacturing technology online programs.

**6. Increase enrollment numbers by expanding the number of educational partners each year and implementing a national marketing campaign.**

To participate in the Network, educational partners would be a NIMS certified institution or seek to become NIMS certified, have an e-learning infrastructure in place (electronic registration, distance education courses, etc.), have flexible articulation agreements with other educational institutions, and have a system that assesses individual's prior learning on the job. All new participants in the Network must agree to have faculty undergo the aforementioned professional development certification process. Educational providers will want to participate because it will allow access to some of the few manufacturing online modules based on national standards, endorsed by national trade associations and requested by employers.

Measurable Outcome: Five new educational partners will be added in year two and five additional partners in Year Three. A marketing plan will be developed in Year One and launched in Year Two.

**7. Create a virtual peer learning network to assist faculty with curriculum issues and to share resources and ideas.**

Measurable Outcome: Faculty participating in the Network will meet a minimum of two times a year and communicate via the learning portal.

<b>Project Deliverables</b>
-----------------------------

There are two key deliverables for this project which include the:

- Online curriculum and lab work, and the
- Professional development for faculty consisting of the orientation, online modules, certification, and toolbox.

**Online Curriculum and Lab Work**

Courses to be developed over the next three years have been selected from accredited certificate and Associate degree programs in manufacturing technology. This strategy will allow adult learners the opportunity to work on short-term academic achievement (certificate) yet move towards longer-term accomplishments (degrees). Most importantly, the courses will adhere to the industry's respected National Institute of Metalworking standards (NIMS), endorsed by national trade associations, and based on *Best Practices for Electronically offered Degree and Certificate Programs* [www.higherlearningcommission.com](http://www.higherlearningcommission.com).



Faculty who integrate the modular content into their existing programs will do so either by downloading to a personal computer, storing it on a CD-Rom or by using an open Web class creation service such as Blackboard. Com. Currently many educational institutions use Blackboard or a similar web-based service because it is offered free. The course creation service enables instructors to add an online component to their classes-- bringing learning materials, class discussions, and tests online -- or to teach an entire course on the Web.

Any lab requiring students to produce a product to specification or demonstrate their operational knowledge will be conducted either at a local college machine shop, or at the company that employs that individual for competency evaluation. Sample labs and practice exercises, to support and reinforce the online learning, will be created for each course and detailed in the faculty guide and online modules. Faculty may use these exercises or blend them with their own ideas for hands-on classroom exercises. Students will have flexible options for completing the hands-on project and assignments for their class and for NIMS credentials.

### **E-Learning Pilot Phase**

The following two initial courses, selected by the Network, will be developed and piloted in the first year of the grant. These courses were recommended by community college faculty due to their high demand in the industry and by students. In addition, the courses were selected based on their ability to transfer to other manufacturing technology programs and can be used as "stepping stones" to certificates and ultimately leading to degree achievement.

**Industrial Computer Technology**: designed to provide students enrolled in technical programs with an understanding of how the computer can be used as a

tool to address a variety of situations utilizing multiple input sources common to industry. Word processing, spreadsheets with graphing capabilities, and illustration and drawing applications will be used by each student to develop a technical presentation.

**Introduction to CNC Programming:** This is an introductory course in preparing programs for CNC mills and lathes. The student will do all the work necessary to produce a variety of parts on a CNC mill. This includes reading the part print, using trigonometry to locate the cutter, writing the program and producing the cutter path

#### **Additional e-Learning Courses – First Year**

Once the pilot phase and revisions are made, the ELM project will deliver 2 additional courses in the first year of the grant: Technical Mathematics and the Fundamentals of Print reading.

#### **Additional e-Learning Courses – Second Year**

Proposed course list for the second grant year is as follows:

- Introduction to Tooling
- Introduction to CNC Programming for Lathes
- Quality Control
- Introduction to Master CAM
- Manual Machining Principles and Technology
- CNC Set up and Operation

#### **Additional e-Learning Courses – Third Year**

In the final year of the grant, six more proposed courses will follow:

- Advanced Master CAM
- Advance Tool Technology and Operation
- Pre- Engineering Principles
- Advanced Mathematics
- Geometric Tolerancing and Dimensioning
- Advanced CNC

### **Faculty Professional Development**

All faculty accessing the e-Learning content will be required to complete both a standard distance learning orientation (offered and required by their own educational institution) and the ELM Online Instructor Certification. This two-step professional development process will provide manufacturing technology instructors with the necessary skills and knowledge to facilitate online learning and, in particular, integrate the manufacturing e-Learning course content. The ELM certification is designed to promote effective use of the course content and will cover such critical topics such as:

- ❑ **System Overview:** e-Learning system, course content, certification process
- ❑ **NTMA server:** authorized access, technical requirements, and resources
- ❑ **Facilitation of a virtual classroom:** methods to engaging students from afar, which reinforce the concepts covered by the institution's distance learning course.
- ❑ **Instructor's Toolbox:** teaching guide, downloads, and documentation resources.

<b>Management Plan</b>
------------------------

### **ELM Network Team: Roles and Responsibilities**

The Project team is made up of staff from NTMA, CAEL and the three community colleges. NTMA will maintain oversight of the budget and overall project. They will subcontract with CAEL as the Project Manager responsible for implementation.

As **Project Sponsor**, NTMA is committed to:

1. Sponsoring overall project and fiscal agent
2. Helping to identify other educational partner institutions
3. Involving employers as needed

4. Providing guidance on content, course selection, and curriculum upgrade
5. Providing technical expertise in relation to NIMS standards
6. Ongoing fundraising work
7. Obtaining buy-in from other trade associations as necessary
8. Helping conduct ongoing marketing activities

As **Project Manager, CAEL** will use its extensive project management expertise to:

1. Manage vendors (web site, e-learning, etc)
2. Coordinate and assist in the development of content for portal
3. Facilitate relationships and agreements with educational providers
4. Facilitate communication and Network meetings with educational partners
5. Help develop/implement marketing and dissemination plan
6. Oversee evaluation process
7. Provide technical assistance to colleges to incorporate prior learning assessment
8. Implement and oversee certification process of faculty

As **Network partners- Community Colleges** will:

1. Serve as subject matter experts on curriculum, upgrades and faculty guide
2. Advise on appropriate assessment instruments and procedures
3. Enroll students and collect fees
4. Track students' progress and feedback
5. Provide student support services (remediation, career counseling, financial aid)
6. Pilot initial courses along with others
7. Provide feedback on online courses and facilitation guide
8. Award degrees and certificates

9. Provide facility and instruction for hands-on lab work
10. Provide facility mentoring for online students
11. Administer NIMS performance credential assessment as necessary
12. Help market program in region

---

## Conclusion

---

The ELM Network's highest priority is developing quality manufacturing technology curriculum that is based upon national standards and that effectively blends the best of online learning and hands-on practice. The curriculum will take the form of easy to access, flexible modules containing core content so that educational institutions across country will be able to customize it and integrate into their manufacturing technology programs. We believe that achieving this goal will benefit all the major stakeholders.

The **individual student** has access to high quality learning that can be accessed at home or work- not just in the classroom. In addition, students will gain skills and knowledge that are portable throughout the nation and based on what the industry says is most important.

**Educational institutions** have access to high quality modules in manufacturing technology. Few colleges would have developed these modules on their own due to limited institutional resources and expertise. This will increase the enrollment level.

**Employers** have access to better trained employees that will lead to greater productivity.



## Brooklyn Chamber of Commerce

Testimony of Randolph Peers  
Vice President for Economic Development  
Brooklyn Chamber of Commerce

Committee on Small Business  
Congress of the United States  
House of Representatives – 107<sup>th</sup> Congress

June 2, 2004

25 Elm Place, Suite 200  
Brooklyn, New York 11201  
(718) 875-1000  
[www.ibrooklyn.com](http://www.ibrooklyn.com)

Good afternoon, my name is Randolph Peers and I am the Vice President for Economic Development at the Brooklyn Chamber of Commerce. I want to thank Chairman Manzullo, Representative Nydia Velazquez, and all of the committee members for inviting me to participate in this hearing. I'd like to start by giving some background information on the borough of Brooklyn and the Brooklyn Chamber of Commerce.

Brooklyn is the most populous of New York City's five boroughs with a population of approximately 2.5 million people and over 36,000 businesses. A majority of these businesses, some 67%, employ between one and four workers, making Brooklyn home to a true small business economy.

Founded in 1918, the Brooklyn Chamber of Commerce is a business assistance organization dedicated to helping Brooklyn businesses grow and prosper, while seeking to foster overall economic development throughout New York City. With more than 1,200 Members from all parts of the borough, the Brooklyn Chamber is the largest Chamber of Commerce in New York City, and one of the fastest-growing business associations in the region.

In my testimony today, I would like to share with you the small business perspective as it relates to issues of education, training, and workforce development, based on the Brooklyn Chamber's seven years of direct involvement in providing workforce services to its membership. On a [personal level, having spent the last thirteen years as a professional in the fields of adult education and workforce development, and now working on the economic development side of the equation, I have experienced first hand the challenges to integrating these two disciplines, especially as they relate to small business.

In May of 2004, the Brooklyn Chamber of Commerce released the results of a comprehensive labor market review<sup>1</sup> it conducted with support from the U.S. Chamber of Commerce's Center for Workforce Preparation. I'd like to briefly share with you some of the study's findings.

With respect to business and industry conditions in Brooklyn:

- Brooklyn contributes approximately 407,000 jobs to New York City's economy. Of the 407,000 jobs, the majority are concentrated in three industries: healthcare, social services and retail.
- Our fourth largest sector, manufacturing currently contributes approximately 36,000 jobs to the economy. Unfortunately, however, it has been the manufacturing sector that has lost the most jobs over the last decade as Brooklyn's economy shifts from goods producing to service-oriented.

---

<sup>1</sup> The Brooklyn Labor Market Review can be downloaded from our website at [www.ibrooklyn.com](http://www.ibrooklyn.com).

- While the study identified industries currently experiencing growth in Brooklyn, including healthcare, social services, and retail, several other emerging sectors were uncovered, including construction, the FIRE sectors (Finance, Insurance and Banking), and tourism-related sectors.
- 42% of Brooklyn-businesses indicated a willingness to hire additional workers this year, up from 20% that actually did increase their workforce in 2003. Companies planning to hire this year cited an improved economy and a general improvement in local business conditions as the reasons for increased staffing.

With respect to recruitment and training issues:

- Of those businesses that did hire additional workers in 2003, 32% indicated that they had a significant problem recruiting "skilled or professional employees."
- Of those organizations planning to hire, small businesses<sup>2</sup> struggle the most with recruiting skilled professional labor and supervisory employees (39% and 20% respectively).
- While 82% of businesses overall indicated that they provide some sort of worker training, the majority, 66%, identify the training as informal on-the-job training. The number of small businesses indicating that they provide informal on-the-job training was 82%.
- Brooklyn businesses were evenly split over the importance of a college degree, with 49% indicating that a degree was "important" or "very important". Small businesses seemed to value a degree least; with only 38% indicating a degree was important.
- Finally, only a small minority of businesses of all classifications turned to the publicly funded workforce development system for either recruitment or training assistance, but predictably, small businesses were least likely to utilize the system.

The statistics contained in the Brooklyn Labor Market Review give us a snapshot of a predominantly small-business economy that is in transition. On the positive side, many emerging industries in the borough are poised for growth, including sectors like the FIRE sectors, construction, and tourism. These new jobs will require higher skill levels while offering more career ladder opportunities. By contrast, however, many of the existing businesses are experiencing several obstacles to recruitment and training, especially amongst the more skilled professions. Additionally, a majority of these companies are small and mid-sized

---

<sup>2</sup> For the purposes of the study, we classified a small business as having between 2 and 50 employees.



companies representing a myriad of obstacles that prevent them from taking advantage of the public workforce system and its resources.

In many cases, an absence of a formal human resources department or a basic lack of staff capacity devoted to workforce issues represents the most significant challenge. Small businesses tend to focus more on immediate bottom line issues, not recognizing the impact staffing, training or employee retention issues can have over the long haul. In other cases, it is simply a lack of awareness that prevents businesses from taking advantage of the public workforce development resources. In this sense, the public workforce system itself has a marketing challenge that needs to be creative in reaching out to smaller employers. Lastly, many small businesses have ambivalence toward working with what they perceive as a "government-run" program that appears too bureaucratic or too social services oriented.

Since 1998, the Brooklyn Chamber of Commerce has operated a successful staffing service for small businesses. This program, called Good Help, has been at the forefront of providing various workforce development services to small business by acting as an intermediary between such companies and the public workforce system. Good Help staff assists companies seeking employees with creating job descriptions and postings. This information is then disseminated among a network of education and training providers in the community at large. These providers send appropriate candidates back to Good Help for an initial screening based on the employer's requirements, with the employer ultimately seeing only those candidates Good Help deemed acceptable. Through this demand-driven model that views the employer as the primary customer, a small business gains access to the widest possible labor pool in an effort to find the most qualified employee.

For a small business the advantages in such a service can be many. For businesses that lack a human resources capacity, the Chamber can provide the expertise to fill the void. In addition, because these businesses are already working with the Chamber of Commerce in other ways, the comfort of an established relationship increases the likelihood that the smaller employer will see the benefit in such a program. Over time, these companies would be more receptive to other types of workforce assistance provided by the public system. These services include such things as incumbent worker training, access to tax credits and wage subsidies, usage of the local One-Stop for additional recruitment assistance, and various forms of technical assistance related to labor compliance issues.

What I am proposing here is not the creation of an alternative to an existing local workforce delivery system. Rather, I see the role of business intermediaries like Chambers of Commerce, trade associations, and other local development corporations as being effective marketing agents for the various programs and

resources provided through public system. In other words, I see intermediaries as playing a vital brokering role as a partner in the system.

In fact, the Brooklyn Chamber of Commerce, through an existing grant provided by the U.S. Chamber of Commerce's Center for Workforce Preparation under their Workforce Innovation Networks initiative, has expanded its intermediary role by providing additional services to the public workforce system. These services include providing regular research on Brooklyn labor market trends and the direct marketing of under-utilized tax credits provided through our State Department of Labor. Because of our successful efforts with the Good Help program and the WINs initiative, it was recently announced that we will be awarded a contract to provide a full range of business services through our local One-Stop. As a full partner in the system, we intend to significantly expand our capacity to bring more small businesses to the workforce table, increasing their access to the many benefits the system can provide.

But while it should be clear that business intermediaries could play an effective role in any workforce system, we must also acknowledge the need to create better synergy between economic development and workforce development. It is my belief that without greater integration, the success of any workforce development initiative, including training initiatives, will be limited. It is also my belief that effective workforce development can only serve to compliment effective economic development. If communities do not implement the conditions to create new jobs through new business development and expansion, there is really no need for workforce development. It is only through greater coordination and communication between these two worlds, that communities can create new jobs in emerging industries and simultaneously tap into a local workforce that is prepared to fill these jobs.

To a certain degree, through industry-specific training initiatives, many cities are beginning to create this coordination. But we must be mindful that such large-scale training initiatives tend to benefit larger businesses that bring many jobs to the table. It is also important to recognize that small businesses, even in similar industries, have differing needs as opposed to larger companies when it comes to worker training. Whereas larger companies may be looking for higher tech training as a means to increase worker proficiency in a particular field or on a particular piece of machinery, small companies tend to have more elementary training needs. Adult basic education, English language skills, critical thinking abilities and soft skills proficiency are more likely to be cited as a small business training need. This is because small businesses are more likely to hire lesser skilled employees because they cannot compete with larger companies in terms of wages and benefits. On the positive side, these businesses are more likely to take a chance on hiring from hard to serve and disadvantaged populations. This however, makes access to incumbent worker training geared toward basic skills critical for both the long-term success of both the employer and employee.

Smaller businesses, even in well-established industries, also need a more generic basket of services that includes basic business assistance not directly related to workforce development. Such services include help with financing issues, basic business planning, access to information on non-workforce related incentive programs, marketing and promotion assistance, access to procurement opportunities, guidance on technology issues and basic technical assistance related to compliance matters. It is through this type of basic business development support that smaller companies become mid-sized companies and ultimately employ more workers. In these cases, the road to increased WIA outcomes is long and winding.

The Brooklyn Chamber of Commerce, through a partnership with the New York City Department of Small Business Services, last year launched an initiative designed to meet the basic support needs of smaller employers and entrepreneurs. The initiative, named the Business Solutions Center, has already provided assistance to 473 companies since the program began in August of last year. Of all of the services provided by the Business Solutions Center to date, the most significant has been the \$1,800,000 in pending loan applications they have helped to facilitate. These loans are being provided for business expansion purposes, and in each case where such an expansion includes adding additional workers, the Chamber's workforce department stands ready to lend assistance.

On a system-wide level, more cities and states are examining ways to create better synergy between workforce and economic development. In New York City for example, last year the Department of Employment was merged into the Department of Small Business Services. This merger paved the way for such innovative initiatives as the Business Solutions Center. In Idaho, Governor Dirk Kempthorne recently announced his state's intention to merge its Labor Department with the Department of Commerce. In a press release issued March 26<sup>th</sup>, Kempthorne stated, "The merger will formalize a long-standing partnership between the two agencies and link the state's economic, community and workforce development services." Many community colleges are also becoming increasingly involved in linking workforce development with successful business incubator projects that are administered through the college itself. Florida has an excellent consortium of technology-based incubators administered through their university system.

In conclusion, government should play a powerful role in helping to foster the greater integration between economic and workforce development beyond what is promoted through existing WIA legislation. Such integration will, in the long run, help not only large businesses, but will empower smaller businesses to grow and become more competitive. In the process, more small business will take advantage of workforce development and training services. Increased awareness and participation by small businesses in the workforce system will

help to make the system itself more responsive to “business needs” and more in step with industry trends. Some suggestions for promoting a business-driven system that is more responsive to small business needs include:

- Encourage policies that foster greater collaboration between business, education, workforce training providers, and the public workforce development system.
- Encourage policies that integrate workforce and economic development.
- Create ways to promote and encourage the inclusion of intermediaries like Chambers of Commerce and trade associations in the marketing and delivery workforce services as partners in the system.
- Through WIA, mandate specific business services outcomes, not just job seeker outcomes, in an effort to make the system more accountable to all business in a community.
- Expand opportunities and lift restrictions on incumbent worker training programs to allow for wider range of training options.
- Allow WIA funds to be used for limited economic development activities; create new tax incentives and wage subsidy incentives that promote new job creation as well as job retention during economic recessions.
- Support efforts to increase local labor market information designed to predict local industry and business trends.

*TESTIMONY SUBMITTED*

***BEFORE THE CONGRESS OF THE UNITED STATES - U.S. HOUSE OF REPRESENTATIVES  
COMMITTEE on SMALL BUSINESS***

***CONGRESSMAN DONALD MANZULLO, Chairman***

***A HEARING on  
“ CAREERS FOR THE 21<sup>ST</sup> CENTURY:  
THE IMPORTANCE OF EDUCATION AND WORKER TRAINING FOR SMALL BUSINESS.”***

**TESTIMONY SUBMISSION TITLE:**

**“WHERE WILL OUR NEXT GENERATION OF ENTREPRENEURS,  
OUR NEXT GENERATION OF NATIONAL WEALTH CREATORS AND MANUFACTURERS  
COME FROM?”**

**A CALL TO ACTION FOR THE DEVELOPMENT OF  
AN ENTREPRENEURIAL CULTURE FOR ALL AMERICANS.”**

Presented By:  
MICHAEL J. CASLIN, III, CEO,  
NATIONAL FOUNDATION FOR TEACHING ENTREPRENEURSHIP (NFTE)  
120 Wall Street, 29<sup>th</sup> Floor  
New York, NY 10005  
212-232-3333 ext. 330/fax- 212-232-2244  
EMAIL -[michaelc@nfte.com](mailto:michaelc@nfte.com) WEBSITE- [www.nfte.com](http://www.nfte.com)

**Submitted: June 2, 2004**

EXECUTIVE SUMMARY

Mr. Chairman, honored members of the Committee and my fellow Americans, on behalf of the National Foundation for Teaching Entrepreneurship (NFTE) I am honored to present the following testimony exploring where our next generation of entrepreneurs, our next generation of national wealth creators will come from and how a culture of entrepreneurship can be further developed in our nation. We have an urgent need to focus on this issue of entrepreneurship culture development if we are to assure the global leadership position of the U.S. economy during this century. I applaud the leadership of the committee for its vision and leadership for calling this hearing today.

The mission of NFTE is to teach entrepreneurship to low-income young people, primarily ages 11 through 18 (up to the age of 24), so they can become economically productive members of society by improving their academic, business, technology and life skills. NFTE's strategy for achieving this mission is to partner with schools, universities and community-based organizations; create innovative, experiential curricula; train and support teachers and youth workers; and provide alumni services.

The state of being entrepreneurially literate, including a true understanding of the joy, value, and creativity of the manufacturing process and the understanding of where a young person can consciously seek to fit on the macro and micro economic production structure and value chain is truly an urgent task for our nation. We can and must promote this awareness for all Americans, the youth of our nation, especially those living in poverty today. I am pleased to offer a 15-point action plan towards this objective at the conclusion of this paper.

I am honored to offer testimony today on behalf of the 100,000 young people NFTE has graduated in the basics of entrepreneurship, wealth creation, production and personal finance via our 3,200 Certified Entrepreneurship Teachers in 46 states and 14 countries.

NFTE's 16 years of existence has been supported by the private sector through generous support of over 500 private-sector sponsors and thousands of business volunteer hours, including "million dollar level" donors: Goldman Sachs Charitable Foundation, Microsoft Corporation, Shelby Cullom Davis Foundation, Charles G. Koch Charitable Foundation, Multinational Scholar Trust, NASDAQ Educational Foundation, Samberg Foundation, Weinberg Foundation, and Atlantic Philanthropies. Recently, the U.S. Small Business Administration and the U.S. Department of Education has also deemed NFTE's efforts as

worthy of strategic investment. In addition, NFTE has been honored to host members of the President's Cabinet and Administration over the past 6 months as they learned first hand about NFTE including: Secretary Don Evans of the U.S. Department of Commerce, Secretary Rod Paige of the U.S. Department of Education and Secretary Elaine Chao of the U.S. Department of Labor as well as Deputy Administrator of the U.S. Small Business Administration Melanie Sabelhaus.

Leading academic partners involve their faculty, their students, their alumni and their significant resources in order to support NFTE's mission. They help promote NFTE's graduate accredited teacher certification program that is building the capacity of educators and youth workers across the nation in a cost-effective, highly leveraged manner. Our professional development model, NFTE University, has built a 3,200-teacher network, which has in turn provided entrepreneurship education to 20,000 youth annually. Our NFTE University partners include Babson College, Carnegie Mellon University, European Business School of London, Florida International University, Georgetown University Graduate School of Business, University of Iowa Center for Entrepreneurship, Northwestern University- Kellogg Graduate School of Business, Stanford University Graduate School of Business-Center for Entrepreneurship, Teachers College at Columbia University, University of Tampa - Sykes Graduate School of Business, and Yale University Graduate School of Management.

NFTE's statewide partnerships include Governor Jeb Bush and the Florida State Department of Education via *Entrepreneurship Florida*, Governor John Rowland of Connecticut, through the Governor's Council on Economic Competitiveness and Technology, the Mississippi and Kentucky State Departments of Education, and Youth Entrepreneurs of Kansas to name just a few.

Internationally, we are coordinating activity via NFTE UK, based in London, NFTE Belgium and launching efforts in Germany and Ireland. NFTE has also established Program Partnerships in India, Argentina, Africa, Latin America and China. In 2004, NFTE educated 20,000 students in the entrepreneurial process. We reached an estimated 16,000 students in the U.S.A., 1,000 in the UK, 100 students in Belgium, 100 in Argentina, 200 students across a number of countries in Africa, 1,200 in El Salvador, 1,000 in India and 400 in China. NFTE serves its students and teachers through 5 global service regions- North America, Latin America, Africa, Asia-Pacific and Europe. The insights we offer you are globally informed and locally proven.

NFTE offers to you today insights that can help contribute to the strengthening of the U.S. economy in the future. NFTE is calling for your support to advance a basic strategy of universal entrepreneurial education, especially for those from families most in need and those who are academically under achieving. Our program model is based on NFTE's 16 years of experience and its award winning program models and curriculum. We have seen first hand how the world is becoming more competitive and economically integrated.

We are starting off this next 100 years facing a series of challenges. Exports are now at a record 50-year low; which means our consumer economy is transferring wealth to other countries that are currently more effective than the U.S.A. in meeting our basic human needs at a competitive value exchange rate. As a result, 2.7 American million manufacturing jobs have been lost in this country. This is alarming since manufacturing salaries and benefits average \$54,000, much higher than the average of jobs from any other economic sector. Real families, real communities are being torn apart, for after all economics – oikonomos- starts with the strength of the home. In addition, while productivity in the manufacturing sector over the past two decades has been double the annual rate of the rest of the private sector, more needs to be done to build further innovation capability. While domestic costs and global competition make the days ahead extremely challenging for our future business leaders and workers, it is very simple—we must engage with the global market by building a stronger culture of entrepreneurship and value exchange or we will perish. For world leadership is built on intellectual, economic and military strength. Without economic strength, intellectual and military strength will weaken.

NFTE's long term objective is that eventually each low income American worker and first generation business owner will be sparked with the powerful knowledge of entrepreneurship in order to help ignite what policy analyst Michael Novak refers to as the “fire of invention”— an ability to meet increasing consumer demand, implement new productivity improvements and begin new innovative and profitable quality initiatives.

There are greatly conflicting trends facing our great nation that we all must take seriously. We are experiencing 50-60% high school drop out rates in urban centers across the country, especially among the lowest income groups while at the same time we are experiencing a 50% college drop out rates of those 66% of America's 3 million public high school students who enroll annually. Yet at the same time there is



a growing skilled worker shortage that will grow to over 6 million unfilled jobs by the Year 2010—entry level workers, craft workers, machinists, IT technicians. Yet many educators today view manufacturing as “not being a growth area in the U.S. economy”. If that is the case, can someone tell me where we will find higher paying jobs and 6 million jobs over the next 6 years?

Where are our dropouts going? They are heading to a state of despair not to a career. Why are they giving up on the American Dream? Because no one is showing them how to dream it and achieve it—they don’t believe it exists for them. What can we do? We must engage this issue from all angles- more effective public policy, expansion of more effective education curriculum such as the NFTE program and more effective small business leaders in the future.

In addition to these troubling trends, the brand perception towards a major part of our Gross Domestic Product, manufacturing, is highly negative among young people today. A recent survey by the National Association of Manufacturers and Deloitte Touche found that creating a quality-manufacturing worker and owner generation is a daunting challenge. Old images of being on an “assembly line”, a life time member of the “chain gang” and meaningless “slave to the production line” are perceptions that will only be transcended when young people understand the means of production and the ability to participate in the ownership of them and the power of creativity that comes with them.

Education systems today are barely grasping the national urgency for entrepreneurial literacy let alone manufacturing literacy. And this committee must raise the consciousness of the American people in order for us to prevail in the struggle we are now engaged in.

Despite these challenges, we have hope. NFTE has conducted 7 major research evaluations to assess the impact of our programs in partnership in partnership with Harvard University Graduate School of Education-Center for At-Risk Youth, Brandeis University Heller Graduate School of Advanced Studies in Social Welfare, Columbia University Teacher’s College and Babson College’s Arthur Blank Center for Entrepreneurship.

Our research tells us that motivated young people are a tremendous, untapped national resource. We know that when we help a young person understand the 1,400 wealth creation concepts in our curriculum (which is in essence a simplified MBA drawn from curriculum used at the highest levels of our graduate schools of business) they develop hope for the future and the possibility that they can have a career. We know that when young people have opportunities to start to test and experience these concepts first hand, that a number of positive changes occur.

Proven impacts from the Harvard Graduate School of Education longitudinal study of NFTE's impact on youth with school engagement and psychological dimensions of entrepreneurship include:

1. Occupational Aspirations among NFTE students increase by 44% pre-to-post program compared to a non-NFTE comparison group change of 10%.
2. Independent Reading by NFTE students experienced improved gains of 4% in pre-to-post program vs. non-NFTE comparison students who experienced a 4% decline.
3. Hispanic NFTE students improve on independent reading scores and school connectedness more than that of non-NFTE Hispanic students.

Proven impacts of the NFTE experience from Brandeis University Heller Graduate School Center for Human Resources is captured in the lead evaluator statement by Dr. Andrew B. Hahn, "NFTE succeeds in teaching the skills and knowledge that are important to helping prepare young Americans for careers and business ownership."

Findings from the net-impact, random assignment, multi-region, pre to post course assessment and longitudinal surveying include:

1. Entrepreneurship Knowledge increases 20X among NFTE course enrolled students in-schools and 7X in summer programs. This proves that entrepreneurship can be taught and learned.
2. Actual Business Activity occurs at a rate of 30X for NFTE students vs. that of non-NFTE students. And sustainable business activity is 30X higher for NFTE students vs. non-NFTE students. This proves that young people have the ability, passion and talent, when properly supported to experience the entrepreneurial process with opportunities to experience first-hand in businesses that they control covering the 4 types of business:

Manufacturing, Wholesale, Retail and Service.

3. The Market Economy is viewed favorably by 63% of NFTE program graduates while 33% have no change in their view and 4% view the market economy less favorably.
4. 59% of NFTE program graduates believe they have the ability to start a small business compared to a pre-program assessment which found that only 20% of students believed in their ability to start a small business.
5. 46% of NFTE graduates had a far greater desire to start their own business than before taking NFTE and 34.8% of NFTE students had a little more desire than before taking NFTE. 3.4% of NFTE students actually had less of a desire to start a small business than before taking NFTE which is attributable to a deeper understanding of the challenge and demands of starting a small business as an owner/entrepreneur.
6. Finally, there was a 4.3% among NFTE graduates in the amount of volunteer work and community services illustrating the principle of doing well in the marketplace goes hand in hand with doing good. NFTE's rigorous 40 page business plan portfolio includes business analysis, strategies and tactics as well as life plan –short and long term education and personal goal setting and community philanthropy planning as key elements for a balanced entrepreneurial lifestyle.

Our partnership with the Prudential Young Entrepreneur Program for 18-30 years old participants in Newark and Philadelphia provide the following metrics:

1. 52% of program graduates out of the program for one year or longer continue to be self-employed.
2. 26% of participants completing the Prudential/NFTE course (88/344) launched businesses and created or retained 172 jobs.

And finally, research from the Charles G. Koch Charitable Foundation on the impact of NFTE over the long-term found the following:

1. 83% of NFTE students want to start a business compared with 60% of a control group sample and 50% of the US public.

2. 83% of NFTE alumni said the NFTE experience increased their desire to become entrepreneurs; and 90% said NFTE increased their confidence. In addition, NFTE alumni were 2X more likely to predict that they would support themselves by owning a business in 5 years.
3. NFTE alumni believed that compared to their non-NFTE peers that they were “taught a lot” By a factor of 8.
4. 89% of alumni reported that NFTE had a benefit on their life; 99% said they would Recommend the NFTE program to others.

In essence, the view of the world, from a small business and entrepreneurial point of view is a very powerful and productive view that must be brought to more people if we are to be globally competitive in the years to come. Being an entrepreneur or an intrapreneur (an employee who is trained in the craft of entrepreneurship) in an entrepreneurial global economy is a powerful long-term strategy for success.

NFTE has grown from a single school in the South Bronx, NY near Yankee Stadium to a truly global education movement. If we seek to be competitive in our world economy in the future, we must create it among the 11-24 year old generation today. Giving a context of how the marketplace works, how manufacturing is a key part of it and how a young person can pursue a lifelong adventure within it, is a core strategy that must be embraced across all 50 state departments of education. Entrepreneurship education includes a greater understanding of the forces that drive opportunity and our economy. This in turn can bring into harmony what many people desire—alignment of “work” with interests, quality of life and financial rewards.

NFTE program graduates understand the economics of one unit, understand how to get it wholesale, understand how to produce it directly when needed to improve profitability and how to bring it to market. More than ever, in an economy operating now at the speed of light, our citizenry must be more entrepreneurially agile and competitive. It is our premise that the essence of our democratic capitalistic society lies squarely on the shoulders of each generation of productive, responsible and business-competent Americans. We cannot take for granted financial knowledge, entrepreneurship, and wealth creation via value-added effort in manufacturing or technology or nation building in any generation.

While we may always need to consider the strategic importance of moving our production to lower cost areas, sometime at prices that are 10% of our domestic cost, and moving our capacity up the value chain by creating more skills based and knowledge intensive businesses, we must develop the next American economy today and NFTE stands ready to contribute. We are pleased to offer an extensive testimony on our guiding thoughts, strategies and 15 specific tactics for strengthening our American economy.

So what is the vision for our nation? What are the opportunities and challenges we face? As enterprising educators and policymakers, the challenge we have is to see beyond the very dark storm clouds of pessimism, cynicism and hopelessness. We must cast off from the docks of fear and uncertainty, set off from the shores of failed policies and practices and by doing so we will be launching a fleet of human capacity onto the sea of market opportunity. A distant shore, a land of peace, prosperity and justice awaits our future entrepreneurial generation. You can see it when you look in the faces of the children of your community, the future voters of your district, and help ignite the spark and work needed to inspire greatness where many believe it no longer exists. Greatness could exist once again with your help. The hard data will emerge- you have in your ability the capacity to generate an increased rate of entrepreneurial business formation, capital accumulation, and asset ownership.

In closing, I assure you that the NFTE students and teachers supported by our staff and public and private partnerships may be a part of the living legacy and measure of our success in advancing economic strength in America. A legacy we now have the ability to greatly expand. A legacy that is most worthy of our collective potential. May we unite in this great effort and may God bless us all in this noble struggle, a struggle in which men and women of good will and entrepreneurial vision must prevail.

Thank you for this opportunity to serve.

## SECTION 1. AN ENTREPRENEURIAL OVERVIEW

Federal Reserve Board Chairman Alan Greenspan stated at the Ninth Annual Economic Development Summit, *In our economy, the three principal means for household asset accumulation are:*

- *Home ownership,*
- *Small business ownership, and*
- *Personal savings.*

We must redouble our efforts today in order to assure our future strength by doing all we can to reinforce this nation-building agenda referred to by Chairman Greenspan is brought to scale.

NFTE's contribution to this agenda is through its entrepreneurship education initiatives that enable America's young people to develop a context and experiential ability to understand the "what," "when" and "why" of money and wealth creation and the "how to" in the entrepreneurial process. President Bush has challenged us to "leave no child behind" and Congress has recently passed an historic education act in response to that call. If we succeed in empowering every child, especially those living in poverty, with an entrepreneurial outlook, NFTE believes that they will never let themselves be left behind. If we are successful in attaining this vision, we will be assured that our future adult citizens will be better practiced in "the why" and "the how" of building up personal wealth via productive behavior including increased rates of personal savings and asset ownership. More thoughtful financial analysis will lead to more positive choices in personal finance. In essence, many more Americans need to learn how to "say no" to alluringly destructive predatory credit. And as our impact and success in shifting personal behavior goes to scale, we will see that even later in life, the retired adult will be more empowered with the understanding on how best to use personal wealth in the most beneficial manner.

In 1834, then Senator Daniel Webster said, "Commercial Credit is a reflection of man's trust in man. Commercial Credit is one of the greatest inventions of modern man and is most useful only in the most advanced societies of the world that are self-governing. Commercial credit is the vital air of the modern economy and has produced more, a thousand times more national wealth than all the mines in the world."

Given the challenges we face today with issues surrounding business and financial literacy, including use of commercially available credit and the role of Careers for the 21<sup>st</sup> Century –The Importance of Education and Worker Training for Small Business, this hearing could not be more strategic or timely. We at NFTE stand ready to offer our entrepreneurial education services to the nation as part of a national strategy.

#### A STRATEGIC INVESTMENT IN ENTREPRENEURIAL CULTURE AND DEMOCRATIC CAPITALISM

About our work with Governor John Rowland of Connecticut and his Council on Economic Competitiveness and Technology, the Governor made the following strategy statement:

*Connecticut's future depends on the vitality of its cities. And the future of Connecticut's cities is inextricably linked to the future of the young people who live there. In the NFTE program, students learn mathematics by working out return on investment, gross profit, net profit, unit costs and more, and by selecting and following stocks. They hone reading skills by using the program's curriculum and workbook, and by reading the The Wall Street Journal and other publications. They improve written and oral communications skills by preparing a business plan, composing letters and memos, developing advertising materials and PowerPoint presentations, and making formal presentations about their businesses. They use technology in a number of ways, including completing BizTech, an Internet component of the NFTE program developed and sponsored by Microsoft.*

One of America's leading educators had the following to say about where our educational strategies must take us if we are to have thriving cities. Dr. Rudy Crew, former Chancellor of the New York City Public School System (which serves a million students, employs 120,000 and has a budget of some \$10 billion) spoke about the essential role that NFTE plays in nation building:

*The work of NFTE is clear, well documented and easy to follow. What NFTE is about is offering a comprehensive response to the increasing call for student adequacy across critical areas, including academic achievement, occupational readiness – including dress and language, personal strength and civic morality. NFTE is clear about these adequacies and is an important force for an American conversation concerning the urgency of bringing these reality-based adequacies to public school systems that have either lost them, don't remember them, don't know how to institutionalize them. Currently the American conversation in Education is only about numbers. How many kids got the right test score? How many students by what percentile in what quartile have moved? That, in my opinion, is not the most significant conversation that should be going on. NFTE is actually onto a new conversation that's critical to America's future.*

*Assume that public schooling has a formal purpose. And that purpose is to create a knowledge base, a skill set and a way for students to translate that skill set into a set of personal adequacies. It is essentially about what each student will be able to do after formal schooling is completed. It is about successfully transitioning from school to work. NFTE has a model that addresses this formal purpose about as well as it is ever going to get, and frankly better than anything else out there. What public education is about is empowering both the academically gifted as well as the challenged to go into our very complex adult world with an ability to identify and climb through the window of opportunity.*

*There is that same range of students who, thanks to NFTE, are able to see themselves as being smart enough, good enough, and practiced enough to succeed in life. This is a powerfully leveraged price to pay for nation building. I'm not talking about students just feeling good. I'm not talking about just coming in and patting them on the head and passing them on with social promotion of just some jargon about business. I'm talking about where NFTE students actually have a set of skills of the likes of which, in a very vigorous and open economy, they can play out their skills and play out their dreams.*

In the 200,000+ staff hours we have spent working on this issue over the past 16 years, NFTE has become convinced that financial literacy and entrepreneurial behavior is something that can be nurtured, advanced and systemically offered. For, just as we as a nation at one point joined together to rid our people of the scourge of polio, so too, if given the tools and the national will, we can work towards global leadership in the 21<sup>st</sup> Century built on the bedrock of financial and entrepreneurial literacy—the ultimate building blocks for careers in the 21<sup>st</sup> century. And our nation, built on the principles of democratic capitalism, will be the stronger for it.

In preparing my testimony, I thought it would be helpful to review some of the basic concepts that bring us here today.

#### **What Is Finance?**

The original concept of finance is traced back to the Middle English word *finauce*, which means end, settlement, and payment. It is the ability to manage funds, assets, wealth. What does finance mean to us today? It is the ability and behavior of every citizen and their ability to set up a savings and checking account, establish gainful self-employment or traditional employment; an ability to secure and properly manage a personal or company credit card; an ability and motivation to lease or own a car and/or a home, and an ability to establish and survive on a retirement plan.

What is happening today? There are many citizens who are unbanked, underemployed, unemployed and ill-prepared for retirement. This trouble extends also to those enrolled in higher education. Associated Press writer Martha Irvine reports that college graduates today are facing crushing debt. The General Accounting Office says students are graduating with an average of \$19,000 in student loans and substantial credit card debt. This is causing an increase in students dropping out of college as well as a record number of bankruptcies filed by people under 25, totaling 94,717 in the year 2000 alone!



### What is Wealth?

The original concept for wealth is found in the Middle English word *welthe*, which means well-being and riches. Author Ayn Rand said, “Wealth is the product of man’s capacity to think.” We are here today to begin the exploration of what we should encourage our citizenry to think about, act on and, in essence, be happy about.

Interestingly, the American Economics Association has been studying the link between money and how we feel, as indicated by our level of happiness. While there is a strong link between money and happiness, according to Economist Andrew Oswald of the University of Warwick, there is also the challenge that society’s ability to generate increased wealth may not necessarily translate into happiness for many of us, unless we earn wealth faster than others or we continue to earn more and indulge more in order to keep the pace of our income and our demands on a par.

The challenge we face among many segments of our society today is that personal demands and “wants” continue to drive our consumption without being matched by wealth-creation capacity; hence, we are now seeing alarming increases in personal debt per capita and personal bankruptcy filings across the nation. California economist Richard Easterlin discovered this issue more than 25 years ago through his research findings, which indicate that even when American society gets “richer,” people are not becoming more content with their lot in life. So, in our effort to promote financial literacy, we would also do well to elevate the conversation in our society about what it is to be wealthy—both quantitatively as well as qualitatively, materially as well as spiritually. The definition of “wealthy” indicates that those who are rich have an abundance of what is valued. Through entrepreneurial education, which includes numerous theoretical and practical exercises in budgeting, savings, compounding interest, the “Rule of 72” and the present and future value of money, we have a chance to shift the mindset of our citizens and encourage them to build an asset base and create value and wealth in society in far more constructive and enduring ways.

**What is Literacy?**

The condition of being literate, especially in the ability to read and write; to be knowledgeable and a well-informed and educated person. Being financially literate is only the first step. Educational research identifying the stage of when “learning” actually occurs has developed a concept known as the “zone of proximal development.”

This zone is established when you have a student, teacher, curriculum, and practical problem/application to address. At NFTE we have seen the powerful combination of theory with practice. In the end, financial literacy must lead to an increased capacity to be self sufficient via accumulation of wealth vs. debt, personal engagement and fulfillment in the marketplace vs. alienation, and an ability to define socio/economic values that drive personal choices and daily behaviors. In addition, being entrepreneurially and manufacturing process literate is a vital part of a mindset that seeks to compete in the world marketplace.

**What is Strategy?**

Simply put, it is concentrating your energy in one direction, driven by a compelling vision that is guided by a clear mission, and made possible by effective planning and teamwork that results in wise and effective actions. Our vision, mission and strategy that we develop today and in the months to come must be guided by a desirable “theory of change,” new outcomes that we attain. Dr. Carol Hirschon Weiss, in *Evaluation Review* 21, No. 4, 1997, reveals that “*a theory of change is a systematic and cumulative study of the links between activities, outcome, and contexts of the initiative.*” In essence, whom do we wish to empower, what do we choose to incentivize and provide to which target audiences for what expected outcomes?

**What is the vision we see and the mission we must undertake to actualize our strategy?**

We must have a clear vision. I believe we, as a nation, generally share a hope for a more productive and responsible citizenry. The mission of national entrepreneurship, manufacturing and financial literacy would, specifically, be an increase in the number of productive and fiscally responsible citizens in America, as defined by a number of economic measures that constitute personal components relating to our community, state and national Gross Domestic Product indicators.

For example, Chairman Greenspan indicated in his remarks aforementioned at the Annual Economic Development Summit, that *small business accounts for 50% of private gross domestic product in our economy and is an important vehicle for significant numbers of minority families to accumulate assets.*

At NFTE we believe that becoming productive and responsible is the essence of entrepreneurship. The foundation of this productivity and independence is entrepreneurial literacy. The skills, attitude and mindset of an entrepreneurially capable person is illustrated in the words of NFTE Curriculum and Education Policy Advisor Dr. Howard Stevenson, of Harvard University Graduate School of Business, as set forth in *Harvard Magazine*, March-April, 2001: *"Having entrepreneurial skills—balancing opportunities with the resources and skills needed to realize them—is a way of managing that is necessary to compete in a world of great complexity and rapid change."*

**What tactics should we use to achieve this strategy?**

First, we must align our energies across many of the 60-plus federal agencies and hundreds of state agencies that share an interest in this agenda. Later on in this testimony I will be recommending a number of initiatives that could be taken that can save money, align energies, and create a greater impact and awareness of appropriate financial behavior.

Second, if we are seeking to achieve significant behavioral change we must carefully define who needs our support, when, why, and how. I believe that universal entrepreneurial literacy addresses many of the urgent trends that have unified those who are here today. Some advocates for improved financial literacy say that students should learn about financial responsibility from their parents. This is important, but what of the millions of students who do not have financially responsible parents? We have proven that students can learn about core concepts from their teachers who use the NFTE curricula and syllabi. And we have seen our students then reach and teach their peers and family. The same arguments can be used towards the issues of globally competitive businesses. Without powerful content and an effective learning model, it would be impossible for a parent recently laid off from a manufacturing facility to counsel their own child on how to succeed in the manufacturing sector and compete globally.

I have often seen the power of a great teacher and great curriculum positively impacts the lives of NFTE students, both here and abroad. In fact, in the first quarter of 2002, a major report affirming the critical role of the teacher, a role championed by NFTE, has been put forth as part of a new economic and education policy in the United Kingdom! As a result, there are now 1,000 NFTE UK students currently enrolled in London in 2004!

Appointed Manager Sam Woods, of Her Majesty's Department of Treasury and The Chancellor of the Exchequer, recently released the "Howard Davies Review" and recognized NFTE for its policy influence by stating:

*Teachers are now at the center of the proposal in this country for the delivery of enterprise learning as per the NFTE model. This approach was quite controversial in the United Kingdom as to the extent to which teachers and schools should be involved in enterprise learning delivery and while hotly debated during the course of the Review, the final conclusion was that teachers are a critical part of the picture. And what had been seen of NFTE both in the UK and the US was extremely helpful in convincing us that this was a practicable position. All our young people will now get a chance to take part in enterprise activities...that would certainly encompass the activities of the NFTE programme. This Review will provide NFTE with a fantastic opportunity in this country.*

In a paper recently published by Harvard University's *Kennedy School Review*, Angie Datta, "Filling the Education Gap by Teaching Enterprise Skills," found that:

*Entrepreneurship programs have raised the levels of basic skills of participating students. One reason is perhaps because this type of learning is typically highly experiential and collaborative—qualities that require additional teaching resources, and engage students to a higher degree...The NFTE program provides an excellent example demonstrating the power of teaching business education and entrepreneurship programs...By focusing on entrepreneurship as a way to synthesize and reinforce basic skills, we can shore up the leakages that exist in the education system...By learning more about the process involved in establishing and sustaining a business, students quickly realize that there are avenues for low interest loans and seed money...The climate for change is ripe in the U.S.A. to implement a program such as "Teaching Entrepreneurship" ...It is imperative that the Federal Government play a role in giving schools and communities the resources to equip young people with the skills and energy and enterprise necessary to succeed in life. Education in the U.S.A. must be recast to include ways that reach out to high school students to promote basic skills learning in a practical context. For many, the American education system has failed to develop adequate capabilities in math, reading and analysis. Teaching personal enterprise and entrepreneurship in low-income areas, both in rural and urban schools, is a proven technique that has worked in the U.S.A. and overseas.*

Chairman Alan Greenspan, in his speech at the Ninth Annual Economic Development Summit also lends a perspective on the importance of education efforts:

*Educational and training programs may be the most critical service offered by community-based organizations to enhance the ability of lower income households to accumulate assets. Indeed analysts have shown that a comprehensive understanding of basic principles of budgeting and saving, at the start, increases household wealth in later years...Financial literacy campaigns help prevent vulnerable consumers from becoming entangled in financially devastating credit arrangements and addressing abusive lending practices that target specific neighborhoods or vulnerable segments of the population and can result in unaffordable payments, equity stripping, and foreclosure.*

Gaining a perspective on building a business plan, figuring out costs and pricing, budgeting and savings is an important skill development phase during the NFTE program and it brings with it the experiential context of a small-business model that a student designs and operates.

A strong society demands and requires a complex harmony of the highest and best functioning of all societal forces within the private and public sectors—including the civic, educational, governmental and entrepreneurial sectors, in order to achieve progress for all. What I am advocating here today is that families, communities and nations be strengthened through a call to action to attain universal financial and entrepreneurial literacy, thereby yielding increased rates of effective business practice, wealth creation and personal wealth management.

#### **SECTION II. THE IMPORTANCE OF ENTREPRENEURIAL CULTURE DEVELOPMENT**

In his 2001 Inaugural Address, President Bush spoke of the United States as a New World, a slave-holding society that found its greatness by becoming a servant of freedom. He said that the grandest of ideals is that everyone belongs, deserves a chance, and that no insignificant person was ever born. He noted that while many of our citizens prosper, others doubt the promise. He challenged us to work together to transcend doubt by building a single nation of justice and opportunity. President Bush called for us to be true citizens. And he emphasized that every child must be taught these principles of citizenship and to uphold them in order for the future to be better. He challenged us to reward effort and enterprise and to look at ourselves and agree that children at risk are not at fault and that persistent poverty is unworthy of our nation's promise. I believe that national and global wealth creation should be our focus and that this hearing is profoundly important in accelerating this vision.

For just as we have effectively joined together in the past to end the scourge of certain diseases, we can band together to grow more effective, stronger free markets and provide the opportunity of ever-greater wealth creation for more citizens of the world. By doing so we will slowly transcend the scourge of poverty and economic social injustice. The contribution that NFTE seeks to make to this great effort is to contribute to the coming "Age of Entrepreneurial Enlightenment and the Pedagogy of the Entrepreneur."

I'm sure that the ideas of Adam Smith, the free-market champion from Edinburgh, and Dr. Paulo Freire, the champion of education for the poor in Central and South America, intersect here at this hearing. Some two hundred years ago, Smith wrote in *Wealth of Nations* about the power of free markets and entrepreneurs. Decades ago, Dr. Freire wrote a powerful book titled *Pedagogy of the Oppressed*. In it, he concluded that education was the great liberator of the masses and that the highest form of the power of education must, in the end, result in the promotion of "ownership opportunity" for the poor.

Today, more than ever in this global economy, it is knowledge, insight and an ability to make effective actions occur that really matters. And reading, writing, arithmetic, entrepreneurship and information technologies are now globally relevant and mission-critical. For, in the end, if we here today are effective, we will pass on to our children and their children stronger households, communities, states and a more prosperous, secure nation.

It has been said that NFTE is a wonderful overnight success that took 16 years. Similarly, in January '2001 the British think tank DEMOS (a key contributor of ideas that have framed Prime Minister Tony Blair's agenda), worked with NFTE USA and NFTE UK to craft an educational vision for "Enterprise Learning for the UK" and I am happy to report that, within the next five years, half of all state-funded school students will be getting an enterprise experience influenced by the NFTE program model. Recently, NFTE was one of only 16 organizations across the United States invited to advise the United States **Senate Committee on Small Business** on the appropriate role of the federal government in promoting entrepreneurship in America. We were the only high-school-focused entrepreneurship and teacher training organization invited. This government advisory role built on participation in the **U.S. Department of Labor's USA/EU Summit on Entrepreneurship**, held in 1999, in which NFTE was the sole practitioner organization amid 60 policy advisors from the USA and the European Union. This spring, the **U.S. Department of Education**, with the support of Senators Arlen Specter and Rick Santorum, selected NFTE and its cutting-edge, Internet-based BizTech curriculum, and "NFTE University" teacher certification programs as worthy of support from the Fund for the Improvement of Education in America. This enabled NFTE to launch **ENTREPRENEURSHIP PENNSYLVANIA** as the first federal/state/private entrepreneurial education partnership in United States history, hosted by Carnegie

Mellon University, and starting with 26 of the “best of class” educators and youth workers from the state’s most challenged communities with the objective of training over 1,000 youths in the next 12 months.

Recently, the **Boys and Girls Clubs of America**, **4H**, **YMCA** and **Future Business Leaders of America** “curriculum juries” each selected NFTE as their entrepreneurship curriculum content provider. In May, 2001, NFTE’s “BizTech” Internet based entrepreneurship curriculum sponsored by Microsoft was featured at the **first national summit on Technology Enhanced Entrepreneurship Education for Graduate and Undergraduate University Entrepreneurship Educators**, sponsored by the E.M. Kauffman Foundation. In addition, BizTech has been certified as qualifying for college credits from the State University of New York – Empire State College Distance Based Learning Network. And, in national youth entrepreneurship competitions, NFTE students, as prepared by their NFTE Certified Entrepreneurship Teachers, simply excel.

Why do we do this? It is our firm belief that entrepreneurship education assures increased individual freedom by empowering individuals with an ability to make more informed and responsible choices in the voluntary creation and exchange of value via the recognition and pursuit of opportunity. And, from a national security interest, the very future of our nation’s communities and cities rests on our collective ability to expand the number of young members of our communities who are more productive and responsible. This is the NFTE mission. It is nation building; it is simple and clear, and its activities contribute to the bedrock of democratic capitalism.

In our dialogue today it is interesting to note the evolution of markets and entrepreneurship. Adam Smith, in *The Wealth of Nations*, recognized three different types of economic organizational systems. They are primarily: Command, Traditional and Free Market economic systems.

The **command economy** is one where a king, emperor, dictator, or planning board determines the allocation of production and resources as well as in effect the distribution of income. The **traditional economy** is one in which centuries-old habits of production (primarily agrarian) are strictly followed, often reinforced by some type of physical or socio/economic force. Today, this type of economic organization can be found in many less-developed nations in the world. The **free market**, as summarized by Dr. Edward Ryan in *Liberty, Virtue, and Happiness – The Story of Economic Freedom in America*, means that each of us has the liberty to take up any occupation, start any business, to operate an enterprise in a

reasonable manner to produce any product or offer any service and charge any price, and keep the reward of effectively meeting consumer needs—wages, interest, rents and profits—in essence to perform any action based on financial literacy, and to act freely with personal will and passion.

As we ponder the issue of financial literacy here in America, it might be helpful to take a few moments to review key findings that have occurred on a global level. Harvard economist Jeffrey Sachs has reported that “market reforms” alone will not reduce the wide gap in living standards between the rich and poor nations. *Business Week* reporter Gene Koretz reports on Sachs’ views in a recent article concerning the pervasive impact of climate on economic development.

For example, of 30 nations classified by the World Bank as high-income, only two, Hong Kong and Singapore, are located in hot, steamy climates. In 1992, output per capita in temperate climates averaged four times the level of tropical ones. Whereas in 1820 the gap was a mere 30%, before the peak of the Industrial Revolution. What has then created this “tropic of poverty”? Tropical regions face two ecological handicaps: 1.) low agricultural productivity due to depleted soil caused by heavy rain, crop pests and parasites, and 2.) a high rate of disease caused by a highly effective transmission vector of insects and bacteria. In addition, World Bank–financed “temperate farming practices” that have been exported to the tropics simply aren’t working.

Temperate zones have a 50% grain productivity gain per acre and a 52% lower infant mortality rate when adjusted for income-versus-tropic zones. Poor nutrition, high infant mortality, high fertility to replace lost children, all drain energy from productive activities.

What are we to do? Sachs has found a glimmer of hope in studying Hong Kong and Singapore. Control disease and diversify economies from agriculture to export–oriented manufacturing. But Sachs also notes that many sub-tropical nations lack the resources to tackle massive agricultural, health, and ecologically based problems.

What are we to do? We can, first of all, start with education and market experiences that shift human behavior to effective engagement in local markets.



In another recent study, World Bank “insider” William Easterly has written a study *The Elusive Quest for Growth: Economists' Adventures and Misadventures in The Tropics* (MIT Press) that claims “International development agencies have failed miserably in their campaign to rid the world of widespread poverty, even after distributing billions of dollars in aid over the past half century.” Easterly’s book provides a devastating analysis of how the World Bank and other agencies have failed to turn poor countries into rich ones. Infrastructure loans and grants were “an investment fetish that should be laid to rest. Debt forgiveness has failed and for those countries with increasingly educated workers there are few opportunities.” However, Easterly ends his analysis with few solutions and little to move forward with except the comfort of confirming that past efforts have failed to achieve a net gain. His conclusion, unfortunately, provides little direction: “Trekking through the tropics trying to make poor nations rich raises more questions than it answers.”

So it is documented that many current government policies, coupled with regional environmental challenges, are achieving very little in alleviating the issues of global poverty, despite spending billions of dollars. What are we to do?

It is interesting to note that the World Bank book review mentioned above ran in the August 27, 2001, collector’s edition of the *Industry Standard*, the “.com” industry magazine of record that provides “Intelligence for the Information Economy.” Interestingly, also featured in this issue was an ominously titled article, “Days of Reckoning,” which reported on the loss of trillions of dollars of wealth due to the “.com” meltdown.

Why do I call this a collector’s edition? The week *Industry Standard* ran the article on the World Bank’s failures, *Industry Standard* filed for bankruptcy protection and closed its doors! So, from these insights of environmental influence, World Bank misdirection, and “.com”/“gone” trends, what are we to do?

I think the only thing we can do is follow the advice of Lao Tsu from centuries ago: "Go to the people, live among them, start with what they have, build on what they know and when the best leaders leave, the people will say they have done it themselves." It is the belief of NFTE that those who can survive can also thrive. One of the few hopes of mankind is to change, inspire and promote more productive human behavior. I believe that the time has come: local communities around the world are ready for and in need of an Entrepreneurial Culture.

Federal Reserve Chairman Alan Greenspan echoes this in a recent statement:

*It is essential that the opportunity to start an enterprise is open to anyone with a viable business concept. We must continue to seek ways to promote the creation and expansion of viable firms by lowering barriers to funding and financial services. To the extent that market participants discriminate, consciously or, more insidiously, unconsciously, capital does not flow to its most profitable uses and the distribution of output is distorted. In the end, costs are higher, less real output is produced and national wealth accumulation is slowed. By removing the non-economic distortions that arise as a result of discrimination (and consequent financial illiteracy), we can generate higher returns on human capital and other productive resources.*

An entrepreneurial culture promotes a personally productive and responsible lifestyle. The Culture of Entrepreneurship brings with it traditions, beliefs, values, attitudes, morals, interests, lifestyle, an innovative and opportunity-obsessed, problem-solving skill set, value exchange, private property rights and voluntary trade. It provides rich alternatives to destructive choices. In addition to public health and civic spirit, one of the few hopes we have is to create a new Entrepreneurial Generation that can be self-directed, empowered, locally innovative and productive.

So how are we to do it? How are we to create an entrepreneurial culture? Our belief is that many Americans facing difficult financial circumstances develop survival skills and street smarts, or simple common sense, which positions them as potentially gifted players in the game of business ownership and long-term asset development.

The Roman leader Maximus said, "How we live our lives will echo through eternity." At NFTE, we believe that a culture and generation can be consciously empowered through effective entrepreneurship education. The NFTE saying is that a great teacher effects eternity. A person who enrolls in a NFTE teacher certification experience has the opportunity to undergo a most profound, heroic pathway. Joseph Campbell's, *A Thousand Faces of a Hero*, teaches us that there are three critical steps to becoming a hero. Most of us in this room want to be heroes, but we became busy with other efforts or lost along the way.

We also weren't aware of the three steps that one must take to become a hero:

- 1) Depart from the comfortable .
- 2) Gain enlightenment through struggle.
- 3) Return to teach others.

We at NFTE are extremely thankful that heroic teachers, and the sponsors who made their enlightenment possible, have committed to the hero path. Einstein said that compound interest was one of the wonders of the world. The NFTE curriculum reviews this concept in great detail. But I am here to tell you that, if you think compound interest is a wonder, just wait until you see entrepreneurship students affecting their peers. This is what I call the concept of “compounding lives”. What a NFTE Teacher has, is an ability to build a generation of entrepreneurs and promote a culture of entrepreneurship.

Again, culture of entrepreneurship is about a specific way of viewing the world; a view that is opportunity-obsessed not current condition-depressed. It is a “skill and will mindset” not a doubting, despairing mindset. It is a language about possibility, value creation and voluntary exchange, not a code for scarcity and pessimism. It is an experience that has a positive outcome and is not just meaningless training for education's sake. Joining the Culture of Entrepreneurship helps an individual belong to the community in a new and profitable way—economically, intellectually and spiritually.

NFTE students, with an entrepreneurial view of the world, gain meaning and joy through the use of their creativity, imagination and innovative energies because they are no longer a numb participant in antiquated education experiences that were tragically designed as visionless silos of knowledge. These silos are highly fragmented, often disconnected from the real world and in the vernacular of many students “irrelevant and boring”. Shouldn't our collective struggle be about setting a new expectation, thereby creating the ultimate National Standard for education: It is about helping our students becoming productive and responsible, economically and socially sufficient in a democratic capitalistic society.

Entrepreneurship Culture is a set of personal, family and community values. It is an attitude towards life, an attitude in life that comes together in a behavior that creates a better world by improving the condition of a single human psyche, which understands that “doing well” includes “doing good.”

Before I became CEO of NFTE, I was an entrepreneur. In my current role, I view myself as an Entrepreneurial Educator. In the early 80's I was inspired by the following insight from George Gilder's *Spirit of Enterprise*. He wrote:

*It is the societal entrepreneurs, creative men and women of production, meeting human needs, who know the rules of the world and the natural laws of the universe and God. Thus they sustain the world by investing themselves in a worthy cause so that they may make a difference. They are the heroes of life. From their knowledge of surviving past failures, they forge new successes. In accepting and then avoiding the dangers of risk, they achieve security for many. In embracing continual change and challenge, they help to ensure social and economic stability and viability for us all.*

On personal reflection, as a teenager and as a young adult completing college, I simply didn't know many people who owned businesses and never really understood the power of the word "entrepreneur." I was told early on to be good in school; do well in school and someone will give you a job. I came to discover that through working in 17 different part, and full-time jobs, launching five small business ventures and consulting with 40 companies from 12 industry segments, that it was the power of viewing the world as an entrepreneur that mattered most. And it could be done in the private, public or independent sectors. The process of entrepreneurial thinking is a real key to personal joy and empowerment. And this view and way of life is useful in any human endeavor—hence our need for a sense of urgency and pursuit of opportunity at this hearing.

A close friend and past NFTE Board Member, Dr. Stephen Spinelli of Babson College, Director of The Arthur M. Blank Center for Entrepreneurship, really provides some insight on this:

*Entrepreneurship is more than just starting new businesses. It is a way of thinking, learning, behaving that links knowledge with actions that create new ventures or turn tired firms into vibrant companies. And anyone can get started by building a bridge between entrepreneurial learning and doing. For example, at NFTE, the aim is for students to achieve economic self-sufficiency and we give them the essential tools to start right now toward achieving that goal.*

Around the globe it is indisputable that we are entering an "Age of Entrepreneurial Enlightenment." As recently as 1978 there were no undergraduate or graduate majors in Entrepreneurial Studies anywhere in the world. The current best-selling defining text worldwide at the graduate business school level, *New Venture Creation*, by Dr. Jeffrey Timmons, was repeatedly turned down by academic publishers. The reason, quite simply, was that everyone "in the know" knew there wasn't a market for this "entrepreneurship" concept. And very little was being studied, researched, written or championed on entrepreneurship anywhere in the world.

Today, there are hundreds of universities and colleges offering doctorates, masters, and undergraduate degrees, and hundreds of grammar and high schools offering courses in entrepreneurship; many utilizing the NFTE curriculum and requiring city-wide student participation.

NFTE has used the model of the development of the Age of Enlightenment. We have gathered key data on the entrepreneurial process and have determined how best to teach it and when to teach it. We have also taught others to teach it in various program models, including experiential, rote, critical thinking, budgeting, core academic exercises, field study, and a teacher-guided use of the Internet through NFTE's BizTech curricula.

And finally, as it relates to starting young people in learning business concepts, I believe that it is not a coincidence that many of NFTE's current private sector sponsors who are generously providing \$6 million annually in support of NFTE, had some of their first business experiences between the ages of 11 and 18.

As NFTE's CEO, I believe that a wise and vibrant entrepreneurial culture in any community or country begins at an age when the basics of reading, writing and critical thinking have been developed and can facilitate the learning and practice of the process of voluntary exchange of value and create an appreciation for private property rights and financial management.

In addition, a book I recently co-authored with Steve Mariotti, *Entrepreneurs in Profile—20 Profiles of the Very Rich: How They Got That Way and How You Can Too*, illustrates that it is never too late to be what you can be or to generate financial strength.

#### WHY IS THE USA GOOD AT ENTREPRENEURSHIP AND WHY IS IT IMPORTANT?

Professors Lee, Miller, Hancock and Rowen of Stanford University Graduate School of Business note the following:

1. Economic growth is a path to a higher standard of living and better quality of life.
2. Ways to achieve growth include increased and improved inputs of labor and capital, trade and comparative advantage and innovative entrepreneurship.
3. American job and wealth creation has been driven by entrepreneurial regions geared towards the creation of new firms and new industries. The important emphasis is on start-up efforts that generate radical and "disruptive technologies" that create sea changes in industries, or even whole new industries.

A 12-point checklist from their research is something we should consider when pondering how to make our nation stronger. Key concepts include:

1. Are the rules of the game on how to enter, try, risk and benefit favorable to new business ventures?
2. Where do ideas bubble up and how quickly?
3. What is the quality of the talent pool?
4. What are local universities doing to promote critical teaching methods and training?
5. What are most effective merit rewards that can be promoted?
6. How is knowledge spreading?
7. Are talent and ability rewarded?
8. Is risk-taking encouraged and failure tolerated?
9. Is there a high level of partnership between companies, universities and research institutes and government and non-profit organizations?
10. Is the local infrastructure right – roads, schools and support service?
11. Are we tracking changes in the progress of the economy, rate of education, quality of life, and health?
12. How quickly is this all happening, and is practice and knowledge sharing encouraged?

NFTE is viewed as a world leader in “knowledge spreading” and transferring the “rules of the game” for wealth creation and entrepreneurship to low-income, socially alienated teens. This knowledge plus micro-efforts at “trying” and “risking” within NFTE’s syllabus enables students to experience “new business ventures” in an organized and supportive way.

As CEO of NFTE, I am primarily responsible for sharing our passion for our vision; promote peak performance of our mission as measured by our Balanced Scorecard and driven by our McKinsey & Co. supported growth plan, and strengthen the global leadership brand of NFTE.

The vision we have is that someday we will contribute to Universal Entrepreneurial Literacy for the world’s nearly 2 billion youth and young adults young people living in poverty. This, we believe, is as important and urgent as access to the polio vaccine that saved millions. A vision where someday, not 100 students as in our first year of NFTE, not the 20,000 students we will educate this year, but *16 million youths* currently living in poverty in the United States will be empowered to take their first steps as entrepreneurs, because we give them the time to learn and the tools to try. Also, realize that here in America we graduate three million public high school seniors a year, many of whom are market place illiterate.

What we do today, next month, and the rest of this year will affect how the world perceives and interacts with us. Someday, if we can get each NFTE Certified Entrepreneurship Teacher to work with 100 students per year and we have 10,000 active NFTE teachers, we will have one million entrepreneurially literate NFTE youth graduating annually. The heart of education reform is to liberate

teachers to truly teach and inspire students to hear, see, learn and do. For it is in the doing that they will understand.

Recently I was in Silicon Valley, at the Stanford University Graduate School of Business where NFTE has enjoyed a long-term partnership with the Center for Entrepreneurship and the Terman School of Engineering, Technology Venture Center. There I came across an insight from one of the most effective business leaders in the world. Vinod Khosla has been part of teams in his role as General Partner in Kleiner, Perkins, Caufield and Byers that have created six jobs per day every day for the past 25 years. Even after the “.com” crash” Mr. Khosla’s ideas are still relevant concerning the power of the Entrepreneurial ways of Silicon Valley, “To emulate, one must first understand. By harnessing the power of abundant ideas, Silicon Valley has become not just a place, but a culture and state of mind.”

#### HOW HAS THE DEFINITION OF ENTREPRENEURSHIP EVOLVED?

Let’s follow the evolution of the “entrepreneur” paradigm over the last 500 years.

In the 1500’s as an entrepreneur you would simply be thought of as an adventurer.

By the late 1600’s, if you chose to risk your private capital in a commercial venture, Professor Jean Baptiste Say would have considered you a “capitalistic entrepreneur.”

As an entrepreneur in the 20<sup>th</sup> century, you would be viewed as an individual who started, managed and assumed the risk of starting and owning a small business.

As an entrepreneur of the 21<sup>st</sup> century, Drs. Moore, Timmons, Altman, Bygrave, Spinelli, Stevenson and Byers tell us that you will be recognized by your:

- ☐ management and leadership style that involves pursuing opportunities without regard to resource limitations currently controlled;
- ☐ ability to think and act in a way that is opportunity-obsessed, holistic in approach and management-oriented.

Seven essential entrepreneurial abilities needed to attempt entrepreneurial success include:

1. Refine ideas into business opportunities.
2. Know what business you are really in.
3. Know who your paying customer really is.
4. Recruit and retain top talent.
5. Access and leverage capital.
6. Develop and communicate your mission and vision to your team.
7. Manage and mobilize your team’s resources to seize a marketplace opportunity.

Core Components of the entrepreneurship formula have been identified as Opportunity, Resources and Team. Forces swirling around and through the formula include: ambiguity, creativity, uncertainty, leadership, communication, and capital market access.

21<sup>st</sup> century entrepreneurs will know how to perceive and pursue opportunity without being limited by the current state of resources. Through this effort goods and services of value create a force that will result in the acceleration of the rates and volume of voluntary exchange of value; thereby advancing the enlightened self-interest of the individuals involved, entrepreneur and customer and society itself. In a global economy with local markets, entrepreneurial thinking is an essential life skill. Again, “a child with an entrepreneurial mind will never let themselves be left behind.”

### **SECTION III. CULTURAL FORCES AND POLICY OPPORTUNITIES**

We can contribute to the strengthened entrepreneurial consciousness of our society by supporting policies and practices that promote economic and entrepreneurial literacy, as well as technology and capital access to all the citizens of our nation. A clear-impact system of research, practice and policy is attainable with the talent assembled here today.

A social equation I often talk about when it comes to community renewal via entrepreneurship is:

$$\text{HCD} + \text{CA} + \text{E} + \text{IT} + \text{VE} = \text{CW}$$

- ☐ HCD – Human Capital Development, via our educational institutions, must promote essential adequacies of academic achievement, occupational readiness, personal strength and civic morality.
- ☐ CA – Capital access must be more effectively developed, especially for the needy.
- ☐ E – Entrepreneurship Education must be a universal competency.
- ☐ IT – Information Technology must become a standard tool for all members of society.
- ☐ VE – Value exchange and increased community trade must be encouraged and promoted with all barriers assessed and removed. For example, how many of us here can fill out a W-2, 1099, FUTA, SUTA, FICA, State and Federal Tax and Employee Forms in a reasonable period of time for just one employee? And if one can do it, what better use of time could you have spent to build your business or strengthen the community?
- ☐ CW – The resultant community wealth is what brings us to the quality of life, standard of living and improved rates of business performance, domestic tranquility, and true national security.

Our nation has clearly progressed since FDR said, “I see one third of our nation ill-housed, ill-clad, ill-nourished. The test of our progress is not whether we add more to the abundance of those who have much; it is whether we provide enough for those who have too little.” I think a possible next generation of this concept is that progress in society must now be measured on how effective we are in providing the tools for those “who have too little” to help themselves.



NFTE's work enables us to understand a very important concept when contemplating economic empowerment for the needy. The disenfranchised are an essential element of the solution not the problem. Their unique insight and understanding of their communities can be harnessed by the entrepreneurial process. This process offers one of the only long-term strategies for promotion of democratic capitalism.

Another perspective offered is from the Chief foreign exchange strategist for FleetBoston Financial, Paul Podolsky, who has developed an index, the CREATIVE DESTRUCTION INDEX, which ranks 25 countries annually. Creative Destruction is an economic concept that refers to new technologies replacing old ones. Key forces include population growth and Internet usage, which create a more flexible economy. The Index maintains that the value of a nation's currency is directly linked to changing demographics and technology. This also makes sense, for "economics" is based on the word *oikonomos* - the household. And, in the end, household ownership of assets stands as a key measure of national strength.

#### WHAT IS THE APPROPRIATE ROLE OF THE FEDERAL GOVERNMENT?

Long term, it is simple: we will get what we focus on. We will get what we invest in. What we track will improve. In November of 1999, NFTE was asked to participate in an International Working Group established under the New Transatlantic Agenda, signed by the USA and the EU in 1995, hosted by the U.S. Department of Labor's-Bureau of International Labor Affairs. In its workshop on Fostering Entrepreneurial Activity, there was an explanation of the necessary conditions for creating a successful business. In devising a policy strategy to promote entrepreneurship, it was noted that entrepreneurs are concerned about things that are not primarily concerns of government.

The EU, for example, sees entrepreneurship as a means to create jobs, whereas entrepreneurs primarily set up new businesses to earn more money, have greater autonomy, and actualize an interesting commercial idea. In the EU, the prevailing opinion is that the status of professionals is above that of businesspeople. To help remedy this view and raise awareness that entrepreneurship is itself a profession and contributes to economic growth, most EU member states are introducing entrepreneurship as a specific topic in economic and business courses. NFTE was cited during this conference as a unique educational

entrepreneurship program with its Internet-based BizTech curriculum and highly credentialed teacher-training program, "NFTE University," which together work to provide a long-term escape from poverty.

During meetings with members of the U.S. Small Business Administration, the NFTE model was viewed by the Hon. Charles Tansey, past Director of the Capital Access Program, in the following way: "NFTE has an excellent Entrepreneurship system that addresses a gaping hole in the American education system. At SBA, we need more tools like NFTE to address the issues of the lending gap. Access to advice and capital is equally important. NFTE offers a comprehensive approach to an early stage venture. As a former Chase Bank executive and policy leader, I see the crucial importance of building small businesses for any community."

#### SO WHAT ARE WE TO DO TO FURTHER STRENGTHEN OUR COMMUNITIES?

##### PROMOTE ENTREPRENEURIAL EDUCATION

- ☐ Establish an entrepreneurial vision for our country by committing to a policy of universal entrepreneurial literacy.
- ☐ Promote entrepreneurship, business ownership of the four types of business: Manufacturing, Wholesale, Retail and Service as career options and as an essential part of citizenship development so that every child can learn to start a business and understand how to participate effectively in our democratic capitalist system.
- ☐ Allow students to develop an Entrepreneurship Development Account ("EDA") where allocated educational funds can be targeted to public schools that offer entrepreneurial learning and practice in the craft of starting, operating, managing and owning a micro-enterprise-both domestically and internationally.
- ☐ Create an "E Corps" consisting of entrepreneurship educators drawn from all sectors to accelerate the promotion of this knowledge as well as require the 2.2 million new public school teachers coming into the field be trained and given the time and federal, state, and local system support to teach this essential life skill.
- ☐ Mandate that 1% of all federal funds be allocated via block grants to states to fund their ability to support the teaching of entrepreneurship.

COORDINATE AND SIMPLIFY ALL FEDERAL AGENCY INITIATIVES RELATED TO  
ENTREPRENEURSHIP AND FINANCIAL LITERACY

- ☐ Establish a time-limited, interagency federal and private sector working group to scan all federal and state agencies for current or future initiatives related to entrepreneurship, global competitiveness and financial literacy to promote focus, alignment, and greater effectiveness.
- ☐ Reduced federal agency expenditures as a result of this efficiency should result in savings to pay down the federal budget deficit and provide a rebate to taxpayers.
- ☐ Simplify Federal and State Statutes relating to Entrepreneurship Education and Federal Testing assessments.
- ☐ Review, improve, and/or eliminate federal and state statutes negatively affecting small business start-up and success.
- ☐ Create a "Fast-Track" regulatory exemption for new business manufacturing start-ups with support from the U.S. Department of Commerce Import/Export Center.
- ☐ Promote private property and personal wealth accumulation by eliminating the waste generated by costly tax planning by eliminating the Inheritance Tax.
- ☐ Streamline bankruptcy and commercial enterprise law.
- ☐ Establish Fast-Track Employee Hiring and Education Guidelines and Design Beneficial Tax Policies.
- ☐ Simplify capital access regulations and requirements for first time business start-ups especially for teen.
- ☐ Simplify the 42,000 page Federal Tax Code and if this is not possible eliminate it and implement a flat tax/consumption tax.

#### SECTION IV. WHERE WILL THE NEW ENTREPRENEURS COME FROM?

New Entrepreneurs have always been informally mentored, nurtured, educated and encouraged. That is in part true today as well. However, a more clear, conscious, systemic plan of entrepreneurial education can be offered. Prime Minister Blair's initiative based on NFTE is a classic case of how the *PEDAGOGY OF THE ENTREPRENEUR* via systemic education can be developed with thoughtful education and business policy. We must always strive to develop a national psyche that celebrates the entrepreneurial potential within each citizen and the valor of the entrepreneurial struggle, whether an enterprise is a lifestyle, mid-size, or hyper-growth endeavor. We must develop a comfortable acceptance that failure in business yields the seeds of insight that will yield success in the future.

The external research on the impact of our efforts in teaching entrepreneurship conducted by Dr. Andrew B. Hahn of the Heller Graduate School for Advanced Studies in Social Welfare at Brandeis University has proven, via net impact random-assignment analysis, that knowledge gains and behavioral changes can occur through studying NFTE's curriculum.

Findings from our research indicate that constant for both males and females, across ethnic and age groups and regions of the United States, 59 out of 60 program sites increased their scores on basic business and economic literacy. NFTE's five years of research efforts, from a national sample of over 600 students, demonstrate that:

- ☐ business knowledge terminology and skills can be transferred at increased rates—our research has shown a rate of learning by NFTE students 20 times that of a control group, and business plan development and personal activity to follow the plan was 30 times that of the control group;
- ☐ 63% of NFTE program graduates view the market economy more favorably than before because they understand it and can more effectively participate in it;
- ☐ educational and personal life goals can be raised—34.8% of NFTE students reported “a little more than before” desire to start a business while 46.2% reported their desire to start a business was “far greater than before”;
- ☐ academic performance can be enhanced as measured by Adult Basic Education assessment grade gains—a NFTE pilot program in Massachusetts demonstrated to the U.S. Department of Labor an average grade gain of two “academic grade” levels over a six-week period, 150-hour program for a class of 25 low-income NFTE teens;
- ☐ 52% of NFTE alumni report that their experience had some impact on their school performance and 23% report that NFTE had a great deal of impact;
- ☐ 30% of NFTE students felt “*somewhat satisfied*” with their experience while 65% feel “*very satisfied*” and nearly 100% said they “*would recommend NFTE to a friend*”;
- ☐ Self-concept can be improved and there were slight trend increases (though not statistically significant) in voluntarism and student award achievements;

- ❑ Employment rates can be increased- 43% of post high school NFTE alumni reported having a part-time job while 20% had full-time employment; and
- ❑ 33% of NFTE alumni generated some level of revenue from their own businesses a year after graduation, 30 times that of a control group.

NFTE's proven, private sector, multi-site, cost-effective, extensively researched and scalable entrepreneurship-training program offers a hopeful, long term, hard-work course.

We offer to all our Program Partners a clear organizational structure, a well-defined program cluster and concrete outcomes for teachers, students and sponsors.

We are pleased to contribute our model to the United States Congress for consideration.

#### **SECTION V. TOWARD A STRONGER NATION**

This process of a clearer method for financial literacy and entrepreneurship education will then contribute to a CULTURE OF ENTREPRENEURSHIP for broader segments of our society. Values and beliefs, attitude and mental sentence structure, lifestyle choices, skill set development, language, dress, personal behavior, expansion of personal-time horizons in decision-making, and ability to navigate the rules of the marketplace, all will enable us to create a happier and more fulfilled community: in essence, nation building.

So what is the vision for our nation? What are the opportunities and challenges we face? As enterprising educators and policymakers, the challenge we have is to see beyond the very dark storm clouds of pessimism, cynicism and hopelessness. We must cast off from the docks of fear and uncertainty, set off from the shores of failed policies and practices and by doing so we will be launching a fleet of human capacity onto the sea of market opportunity. A distant shore, a land of peace, prosperity and justice awaits our future entrepreneurial generation. You can see it when you look in the faces of the children of your community, the future voters of your district, and help ignite the spark and work needed to inspire greatness where many believe it no longer exists. Greatness could exist once again with your help. The hard data will emerge- you have in your ability the capacity to generate an increased rate of entrepreneurial business formation, capital accumulation, and asset ownership.

In a groundbreaking study, Dr. John Thorne of Carnegie Mellon University, found that *the single most important causal indicator of any community's future economic wealth is the number of entrepreneurs and business owners per capita in the 25-35 year age group*. What NFTE is attempting to do makes even more sense with this perspective.

Today we see a response to the call of Thomas Jefferson, who saw the importance of learning and the potential of the empowered mind, when he said: *I pledge eternal hostility towards every form of tyranny over the mind of man.* What causes the tyranny of poverty? It is in large part due to economic, financial, and entrepreneurial illiteracy, and an existence without hope and vision. Fortunately, it is the very idea of value creation and voluntary trade via the entrepreneurial wealth-creation and ownership process that can free the minds and transform the lives of our citizens.

We can see the actualization of the vision of the Reverend Martin Luther King, when he said, "The Bank of Justice is open for business and is backed by the vaults of opportunity." We see that we can build on the vision of President Ronald Reagan for new "shining cities on the hill". These cities of all kinds of people, these free and commercially bustling cities, these cities where all people, yes, all people with the will and heart can enter and find a home. And we see the creation, thanks to the teachers and stakeholders of NFTE, of Robert F. Kennedy's tiny ripples of entrepreneurial hope, which, when generated from a million different centers of energy and daring and caring, can create a riptide that could sweep away the mightiest forces of oppression and evil.

So at the end of this hearing, when the excitement has subsided and the challenge of being a hero becomes very real, please keep in mind the words of a teacher:

*Tentative efforts lead to tentative outcomes. Therefore commit yourself fully to your endeavors. Determine to construct your character through excellent actions and determine to pay the price of a worthy goal. The trials you encounter will reveal your strengths. And through it all remain steadfast. For someday you will build something that endures, something worthy of your potential.*

These powerful words came from a most unlikely source. A former slave, who then became a teacher and historian. The city, Rome. The teacher, EPICETUS. The time, 100 A.D.

In closing, I assure you that the NFTE students and teachers supported by our staff and public and private partnerships may be a part of the living legacy and measure of our success in advancing economic strength in America. A legacy we now have the ability to greatly expand. A legacy that is most worthy of our collective potential. May we unite in this great effort and may God bless us all in this noble struggle, a struggle in which men and women of good will and entrepreneurial vision must prevail. Thank you.

